* Paul Schulwitz please. Please return all attachments with search results. Thanks

11/5121

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Molly Ceperley Examiner #: 59757 Date: 02/24/04

Art Unit: 1641 Phone Number ~~30~~ 272-0813 Serial Number: 10/005,050

Mail Box and Bldg/Room Location: Rem 3A51 Results Format Preferred (circle): PAPER DISK E-MAIL

Rem 3C70

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Labelling of immobilized proteins using dipyrromethene boron difluoride dyes

Inventors (please provide full names): Richard P. Haugland, Karen J. Martin, Wayne F. Patton

Earliest Priority Filing Date: 12/03/01

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

① Please search for the labeling of poly(amino acids) or amino acids or proteins or peptides or polypeptides with dipyrromethene boron difluoride dyes (Tradename BODIPY® dyes from Molecular Probes, Inc.). Dye structures in claims ①, 21-31.
(a.k.a. indacene difluoride dyes)

② Search ① in combination with each of the terms: gel electrophoresis, nylon, poly(vinylidene difluoride (PVDF), glass, plastic, aptamer. (275)

③ Please search for the dyes listed in ① in combination with each of the terms: specific binding pair, ligand, antibody, antigen, biotin, avidin, neutravidin, streptavidin, lectin. See claims 57+. (A combination as simple as a labeled antibody + a BODIPY dye would be pertinent.)
(enzyme, fluorescent, etc. (276)

10/005,050

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#)_____	STN 983.41
Searcher Phone #: _____	AA Sequence (#)_____	Dialog _____
Searcher Location: _____	Structure (#) 1	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: 30	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: 28	Other _____	Other (specify) _____

PTO-1590 (8-01)

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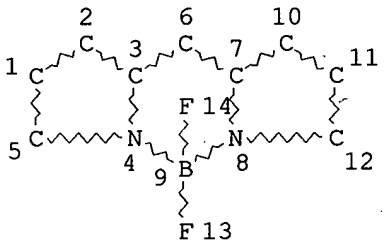


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
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L4          957 SEA FILE=HCAPLUS ABB=ON  PLU=ON  AMINO ACIDS?/CT(L)LABEL?
L5         1123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PEPTIDES?/CT(L)LABEL?
L6         3945 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PROTEINS?/CT(L)LABEL?
L7           42 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND (L4 OR L5 OR L6)


=> d l7 ibib ab hitstr 1-42

L7   ANSWER 1 OF 42  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2004:100265 HCAPLUS
DOCUMENT NUMBER:         140:141689
TITLE:                   Method for endoglycosidase determination and screening
                         for endoglycosidase modulators with substrates dually
                         labeled with energy donors and energy acceptors
INVENTOR(S):             Preaudat, Marc Olivier; Tokuda, Chikashi; Jacquemart,
                         Laurence
PATENT ASSIGNEE(S):      Cis Bio International, Fr.
SOURCE:                  Fr. Demande, 33 pp.
                         CODEN: FRXXBL
DOCUMENT TYPE:           Patent
LANGUAGE:                French
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
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     FR 2843126         A1   20040206      FR 2002-9836     20020801
     WO 2004013348      A2   20040212      WO 2003-EP9315   20030731
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
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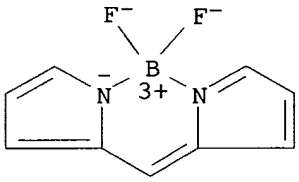
PRIORITY APPLN. INFO.: FR 2002-9836 A 20020801

AB The invention relates to a method of detn. of an endoglycosidase, and in particular of heparanase, in a sample as well as a method of detection of a compd. likely to modulate the activity of an endoglycosidase, by the measurement of a signal resulting from energy transfer between a signal donor and a signal acceptor (such as FRET) attached to the substrate. Thus, heparan sulfate labeled with biotin and with dinitrophenol was prepd. The dually labeled heparanase substrate was prepd. by adding streptavidin-XL665 and anti-DNP antibody-rare earth cryptate conjugates.

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (method for endoglycosidase detn. and screening for endoglycosidase modulators with substrates dually labeled with energy donors and energy acceptors)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:80789 HCAPLUS
DOCUMENT NUMBER: 140:141435
TITLE: Incorporation of fluorescently labeled nonnatural amino acids into proteins in an E. coli in vitro translation system
INVENTOR(S): Hohsaka, Takahiro; Sisido, Masahiko
PATENT ASSIGNEE(S): Protein Express Co., Ltd., Japan
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009709	A1	20040129	WO 2003-JP8970	20030715

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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

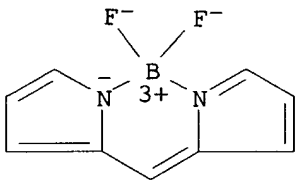
PRIORITY APPLN. INFO.: JP 2002-209736 A 20020718

AB Labeled amino acids which can be incorporated into proteins using a protein synthesis system and functional proteins having a label, and a method for their prepn., are disclosed. Labeled amino acids wherein an arom. ring is attached to a side chain of the amino acid and a labeling compd. is further attached to the amino acid via the arom. ring, are obtained. Also, a novel method for efficiently obtaining a labeled amino acid/tRNA complex is provided. Nonnatural amino acids may be labeled with a dye, fluorescent substance, chemiluminescent material, bioluminescent material, enzyme substrate, coenzyme, antigenic substance, or protein-binding substance. Compds. contg. 4,4-difluoro-4-bora-3a,4a-diaza-S-indacene backbone or its derivs., 4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-S-indacene-3-propionic acid or its salt, in particular, can be used as fluorescent label. Various nonnatural amino acids has been incorporated into proteins by using four-base codons in an E. coli in vitro translation system. Here, design and synthesis of novel fluorescently labeled nonnatural amino acids and their incorporation into proteins were investigated. TRNAs that contained a CCCG anticodon and were aminoacylated with BODIPY FL-labeled amino acids were prepd. by a chem. aminoacylation method, and added to an in vitro translation system in the presence of a streptavidin mRNA contg. a CGGG codon. SDS-PAGE and Western blot anal. of the synthesized proteins indicate that BODIPY FL-labeled aminophenylalanine derivs. are efficiently incorporated into proteins through the four-base codon decoding. A four-base codon can be translated into a nonnatural amino acid by chem. amino-acylated frameshift suppressor tRNA contg. complementary four-base anticodon. The resulting streptavidin retained biotin binding activity. Camel anti-lysozyme antibodies and green fluorescent protein derivs. incorporating labeled nonnatural amino acids were also produced. This technique expands the scope of the nonnatural amino acid mutagenesis.

IT **138026-71-8D**, BODIPY, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(amino acids labeled with; incorporation of fluorescently labeled nonnatural amino acids into proteins in an E. coli in vitro translation system)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



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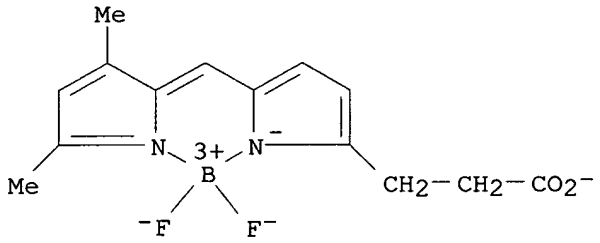
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (incorporation of fluorescently labeled nonnatural amino acids into proteins in an E. coli in vitro translation system)

RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



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RN 165599-63-3 HCAPLUS
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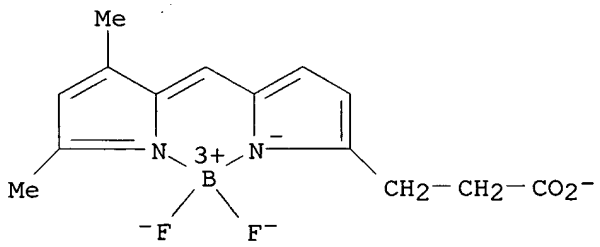
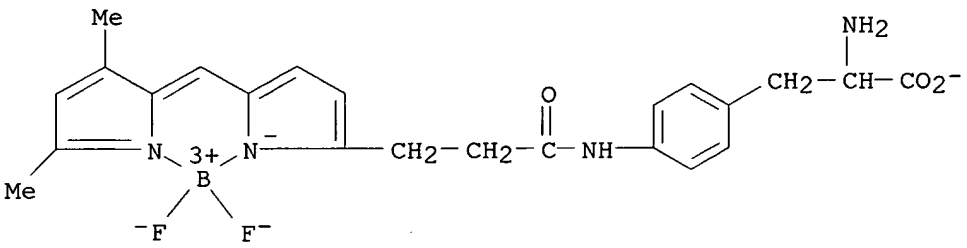


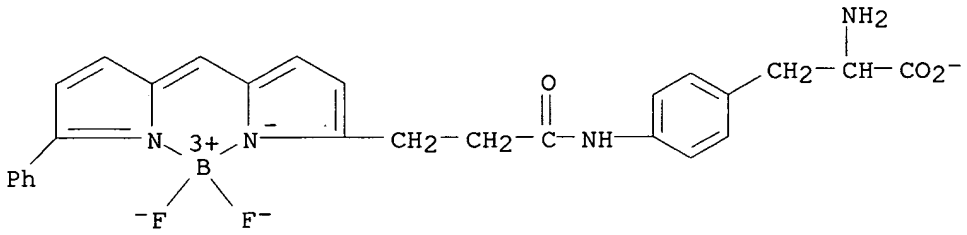
● H+

RN 651717-44-1 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



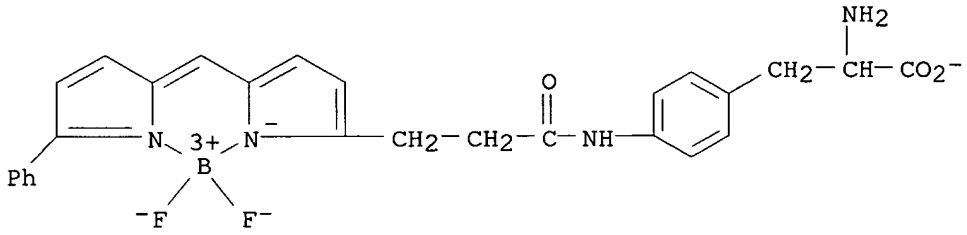
● H^+

RN 651717-45-2 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



● H^+

RN 651717-45-2 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



● H^+

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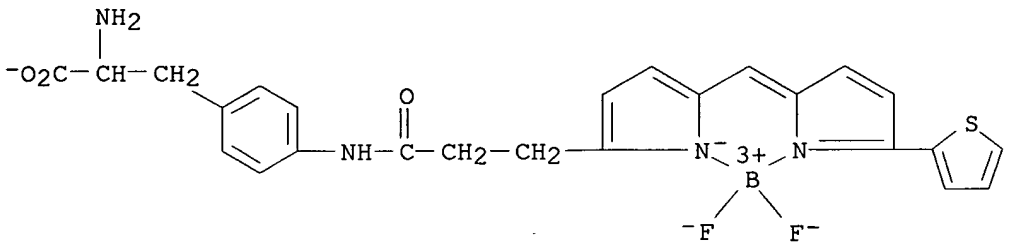
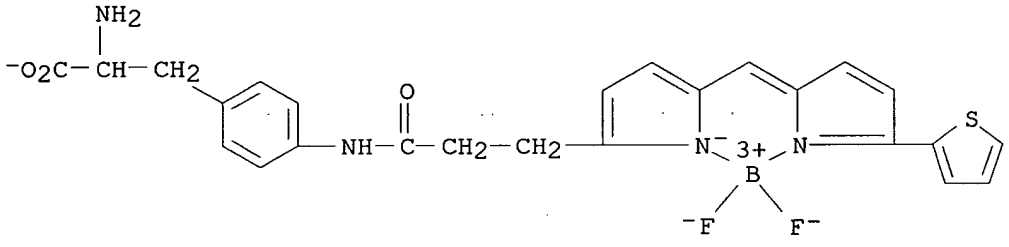


● H^+

RN 651717-46-3 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



● H^+

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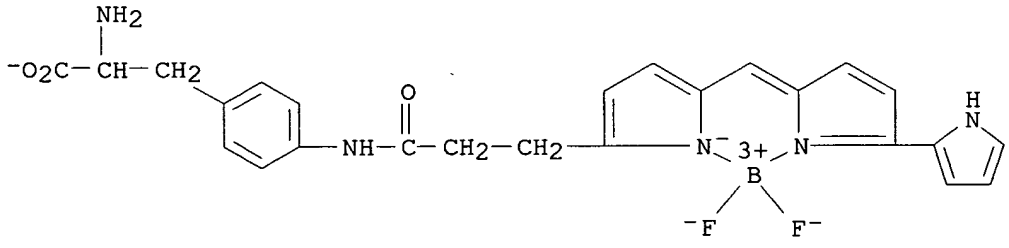

● H^+

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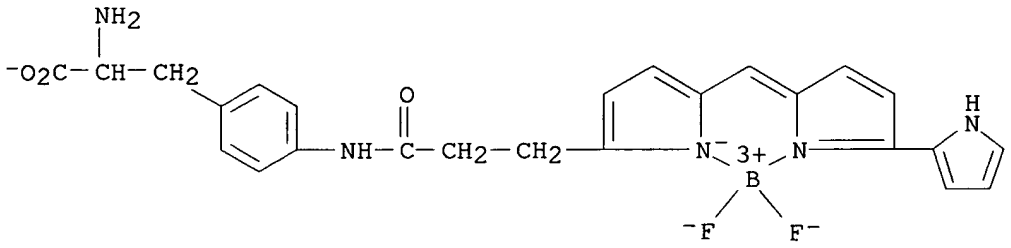

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651717-51-0P 651717-53-2P 651717-54-3P
651717-55-4P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(incorporation of fluorescently labeled nonnatural amino acids into proteins in an E. coli in vitro translation system)
RN 651717-48-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

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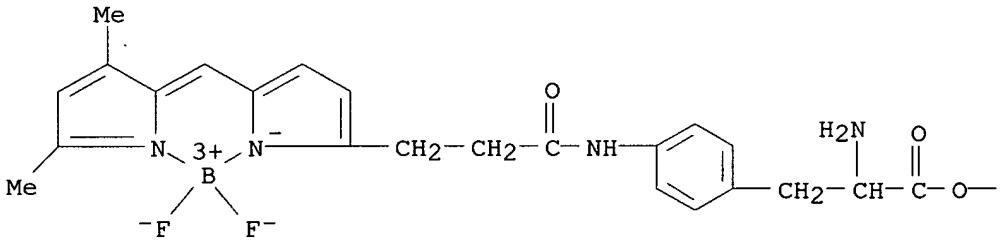

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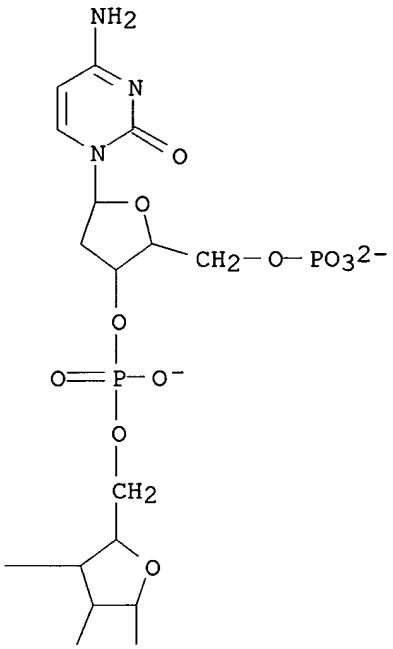

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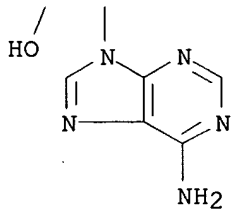
● 3 H^+

PAGE 2-B



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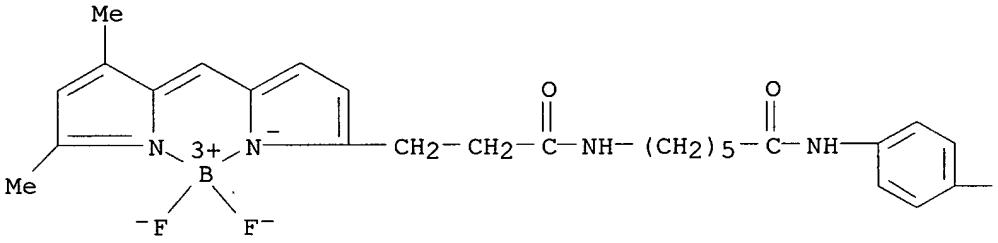

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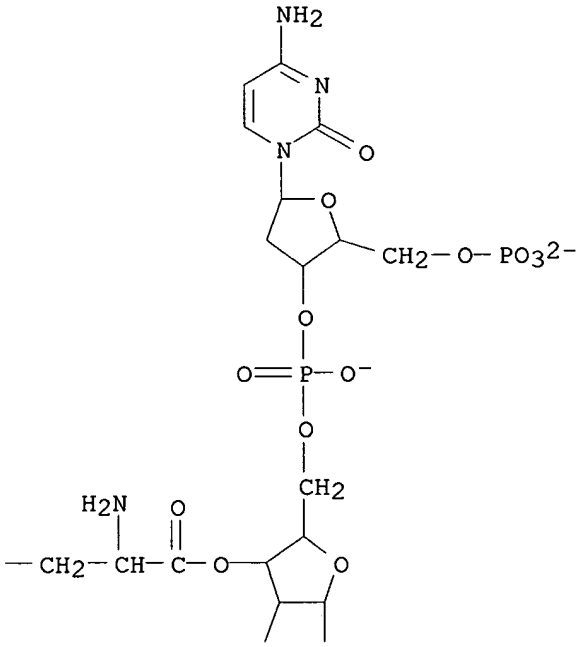

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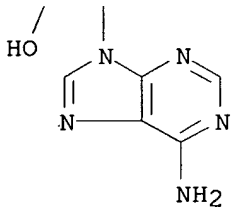
●3 H^+

PAGE 2-B



RN 651717-50-9 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

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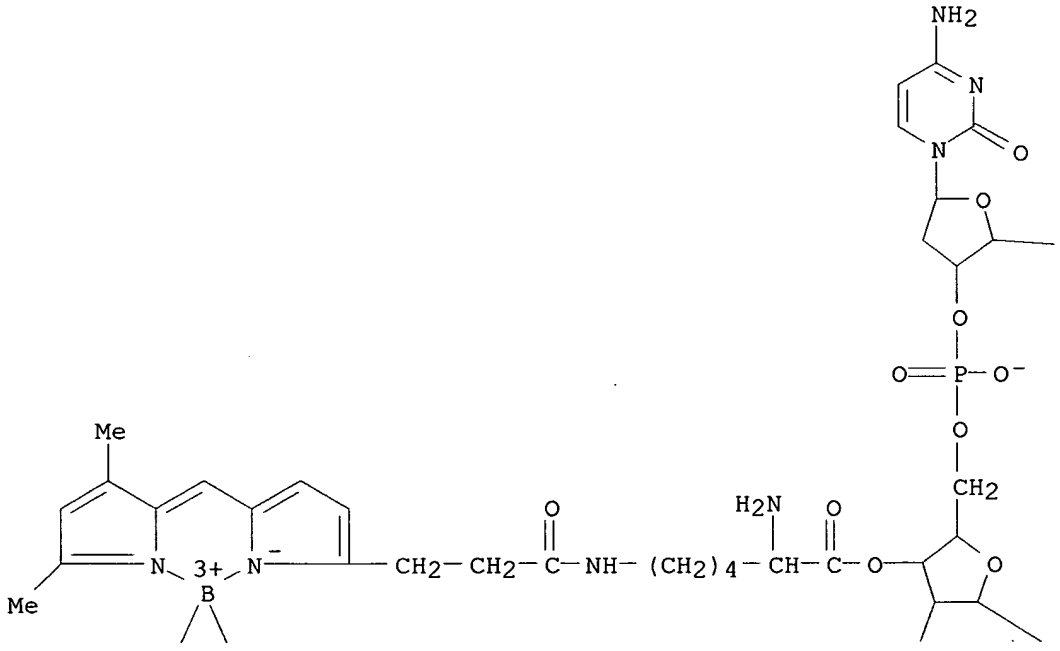

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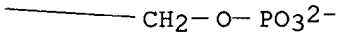

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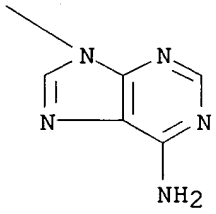
●3 H^+

PAGE 2-B



RN 651717-51-0 HCAPLUS
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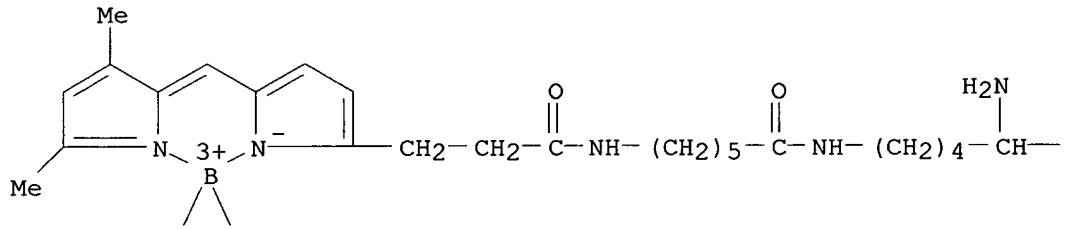

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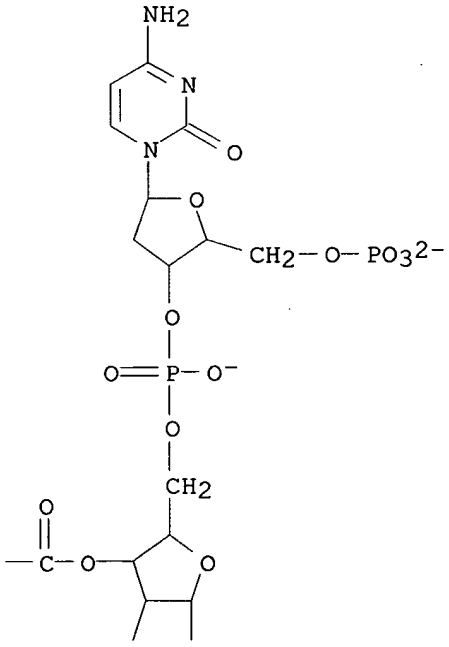

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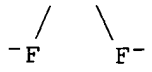

●3 H^+

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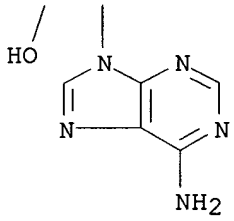

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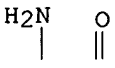

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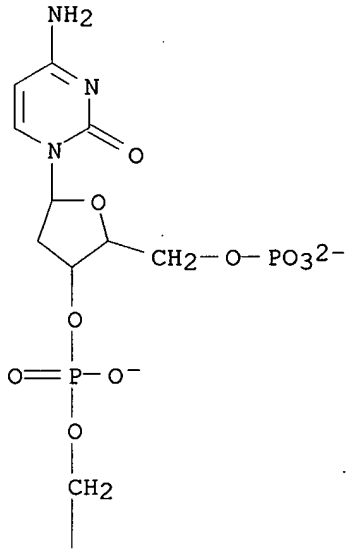

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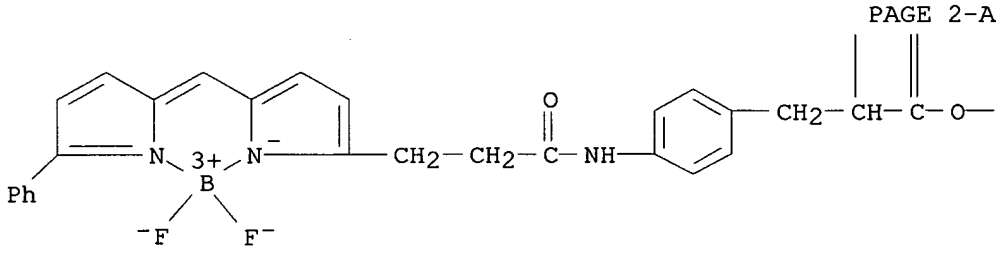

●3 H^+

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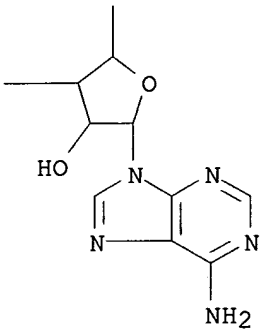
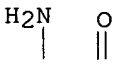


RN 651717-54-3 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



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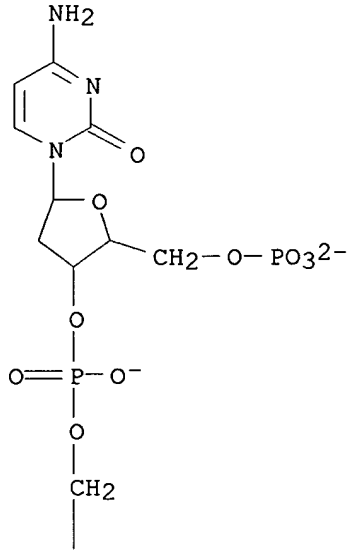
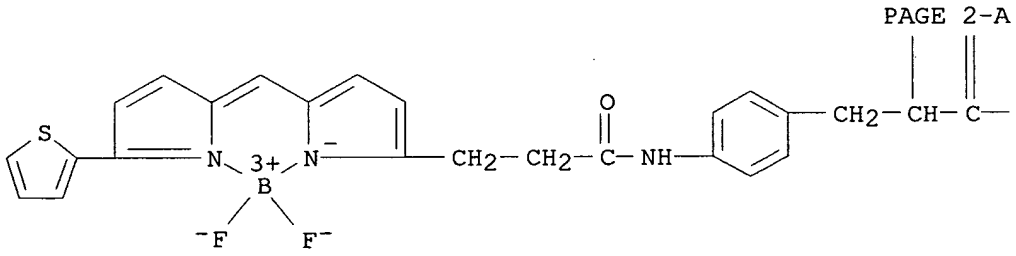
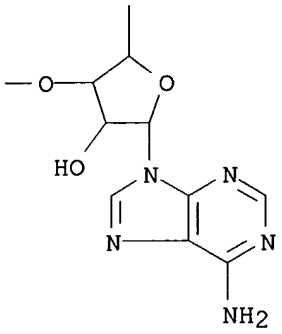


PAGE 2-A



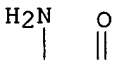
● 3 H^+

PAGE 2-B



RN 651717-55-4 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



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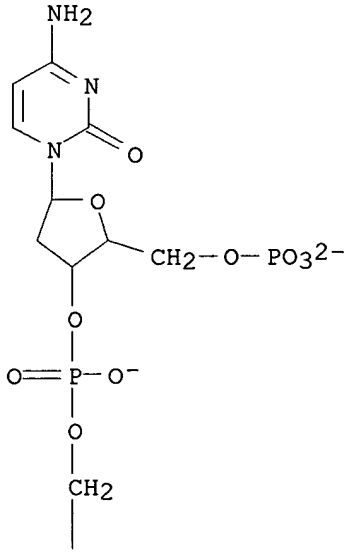

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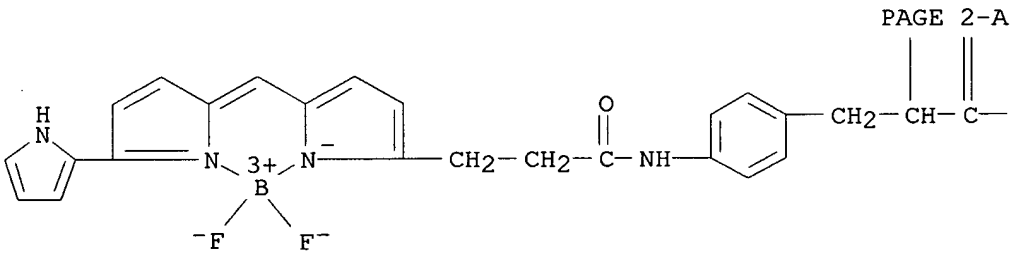
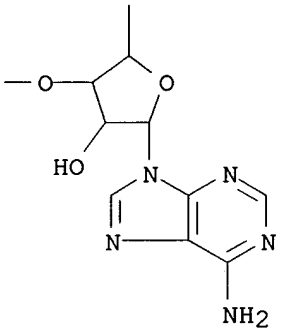


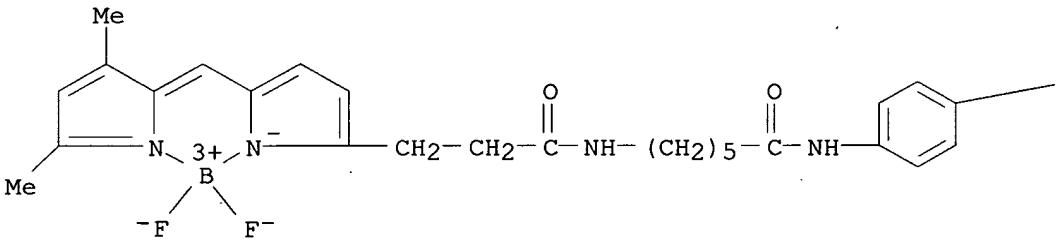
● 3 H^+

PAGE 2-B



IT **651717-52-1DP,** tRNA conjugate
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(incorporation of fluorescently labeled nonnatural amino acids into proteins in an E. coli in vitro translation system)
RN 651717-52-1 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



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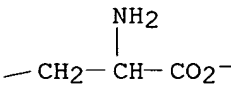
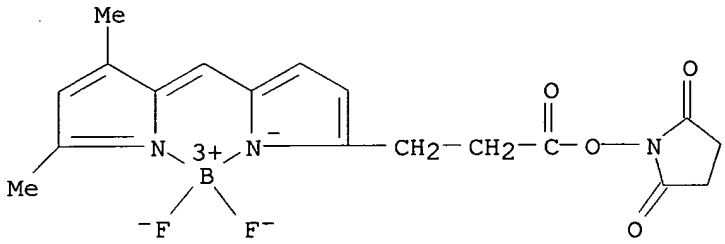
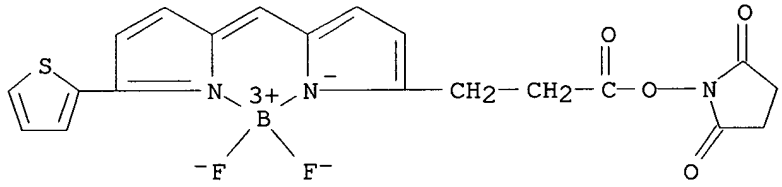


IT **146616-66-2,** BODIPY FL-SE **150173-73-2**
201998-61-0 217190-09-5 335193-70-9, BODIPY R6G-SE
RL: RCT (Reactant); RACT (Reactant or reagent)
(incorporation of fluorescently labeled nonnatural amino acids into proteins in an E. coli in vitro translation system)
RN 146616-66-2 HCAPLUS
CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-,

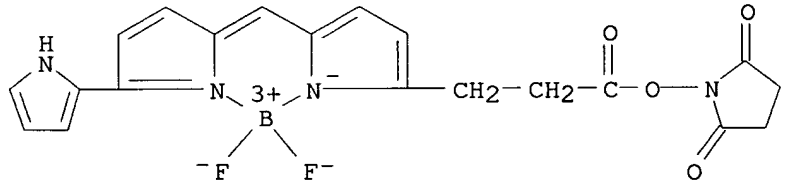
(T-4)- (9CI) (CA INDEX NAME)



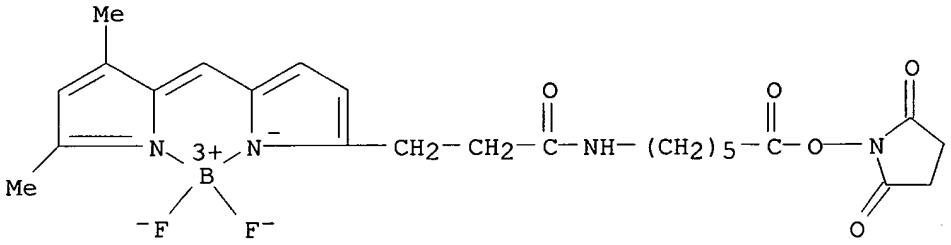
RN 150173-73-2 HCAPLUS
CN Boron, difluoro[1-[1-oxo-3-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propoxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



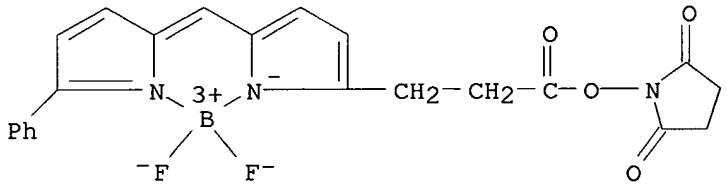
RN 201998-61-0 HCAPLUS
CN Boron, difluoro[1-[1-oxo-3-[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propoxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



RN 217190-09-5 HCAPLUS
CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 335193-70-9 HCAPLUS
CN Boron, difluoro[1-[1-oxo-3-[5-[(5-phenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]propoxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:80695 HCAPLUS
DOCUMENT NUMBER: 140:129775
TITLE: Zwitterionic fluorescent dyes for labeling in proteomic and other biological analyses
INVENTOR(S): Dratz, Edward A.; Grieco, Paul A.
PATENT ASSIGNEE(S): Montana State University, USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009598	A1	20040129	WO 2003-US22397	20030718

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

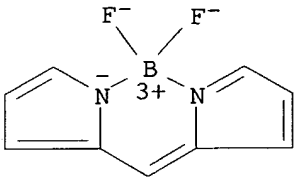
PRIORITY APPLN. INFO.: US 2002-396950P P 20020718

AB The invention relates to compns. and methods useful in the labeling and identification of proteins. The invention provides for highly sol. zwitterionic dye mols. where the dyes and assocd. side groups are non-titratable and maintain their net zwitterionic character over a broad pH range, e.g. between pH 3 and 12. These BODIPY dye mols. find utility in a variety of applications, including use in the field of proteomics.

IT **138026-71-8D**, BODIPY, derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(zwitterionic fluorescent dyes for labeling proteins)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:33989 HCAPLUS

DOCUMENT NUMBER: 140:111686

TITLE: Preparation of fluorescent motilin peptides

INVENTOR(S): Desjardins, Clarissa; Slon-Usakiewicz, Jacek; Bonter, Katherine J.

PATENT ASSIGNEE(S): Advanced Bioconcept Company, Can.

SOURCE: U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 682,810.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6677430	B1	20040113	US 2000-539593	20000331
US 6054557	A	20000425	US 1996-682810	19960710

PRIORITY APPLN. INFO.: US 1995-504856 B2 19950720
US 1996-682810 A2 19960710
US 1995-416007 A2 19950404
US 1995-475751 A2 19950607

OTHER SOURCE(S): MARPAT 140:111686

AB The invention relates to motilin peptides (including fragments, derivs., or analogs) attached to a light-emitting moiety via CO, CS, CH(OH), C:C:O, C:NH, etc., such that the compds. exhibit substantial biol. activity in the presence of receptors having affinities for motilin peptides. Thus, fluorescein-labeled motilin was prepd. and its displacement of 125I-motilin shown in a graph (EC50 = 1.10e-009, Ki = 5.50e-010).

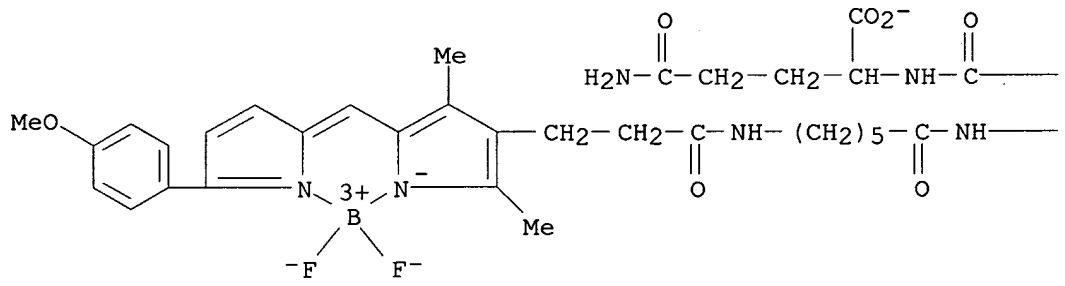
IT **646535-58-2P 646535-59-3P**

RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of fluorescent motilin peptides)

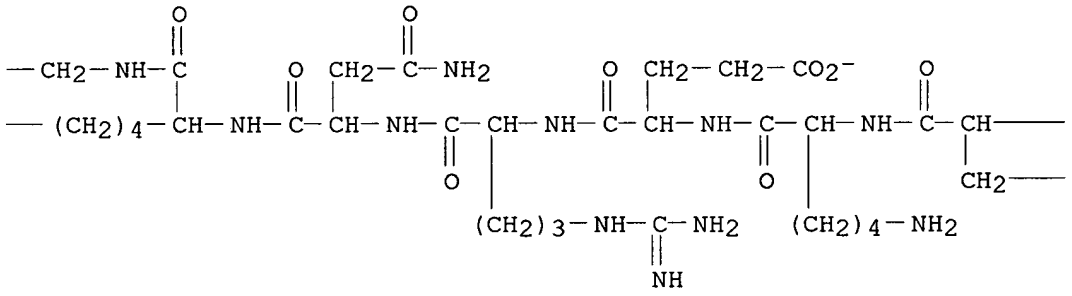
RN 646535-58-2 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



PAGE 1-B



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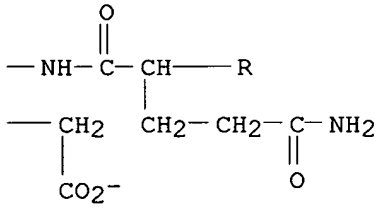

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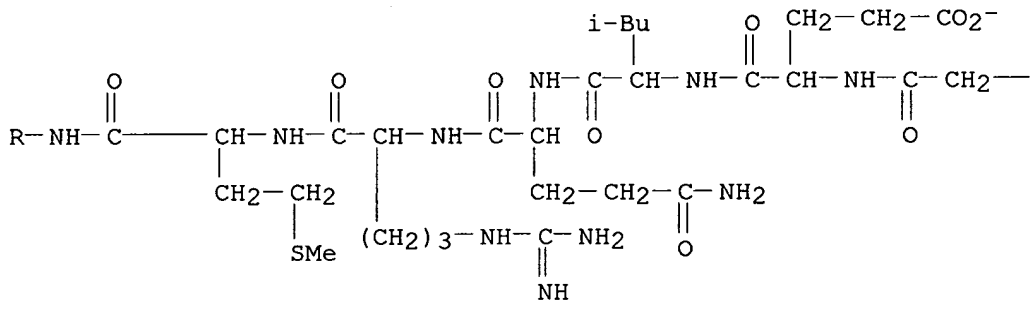
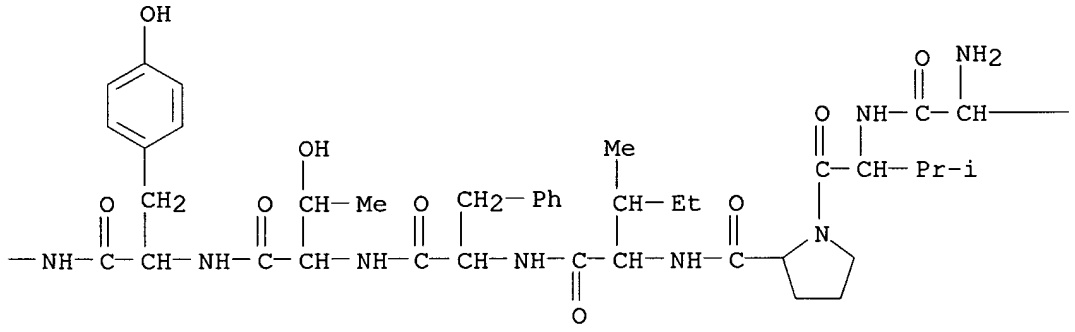


● 4 H^+

PAGE 2-B



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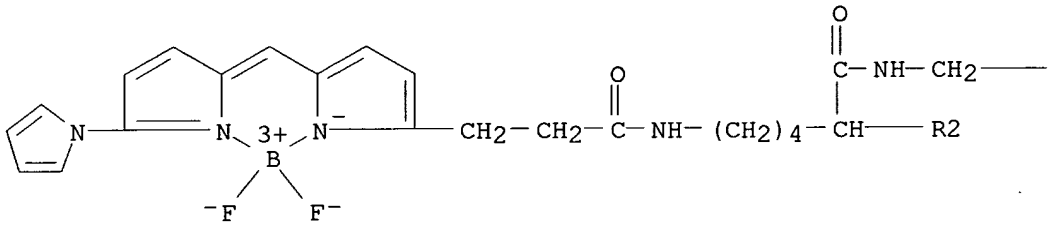
— CH_2 — Ph

RN 646535-59-3 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



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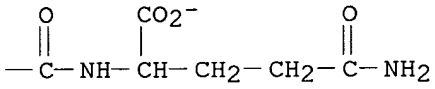

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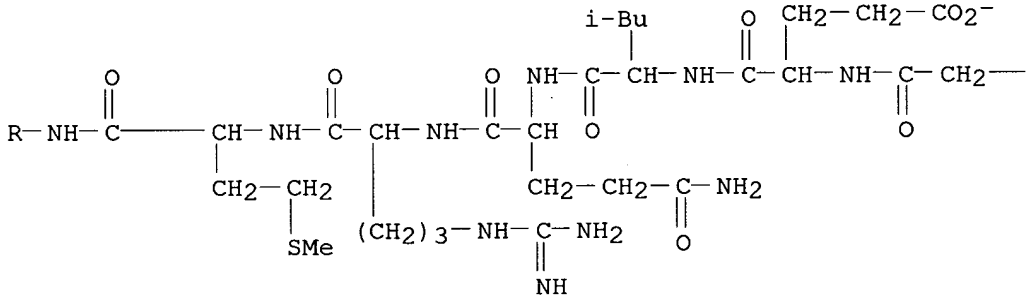
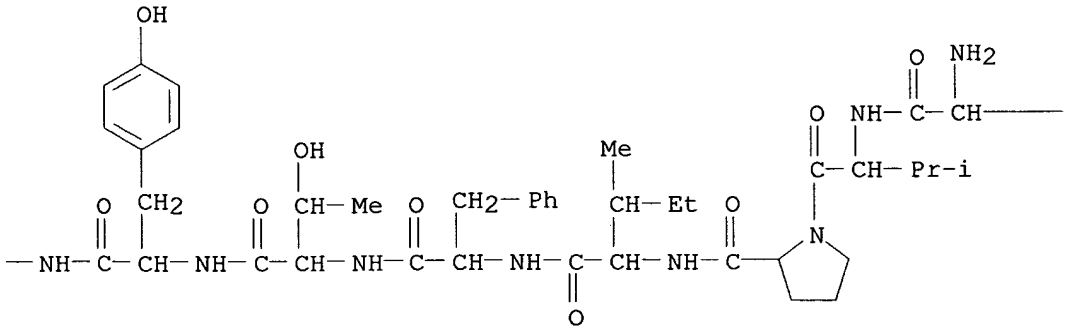


PAGE 2-B



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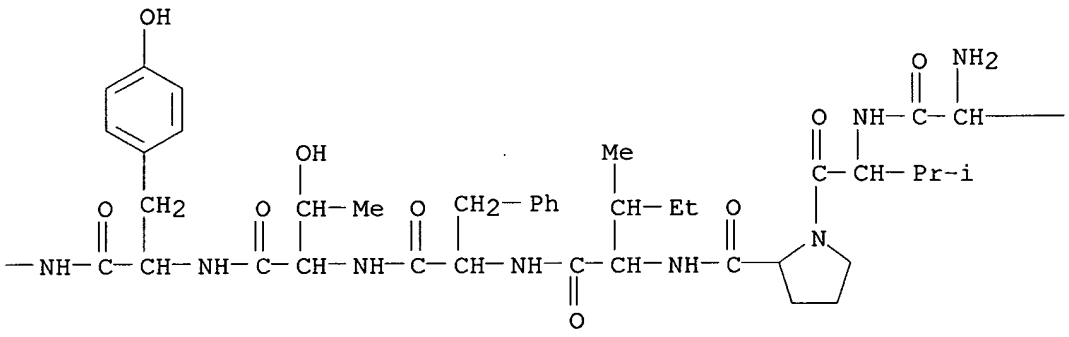

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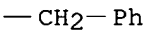

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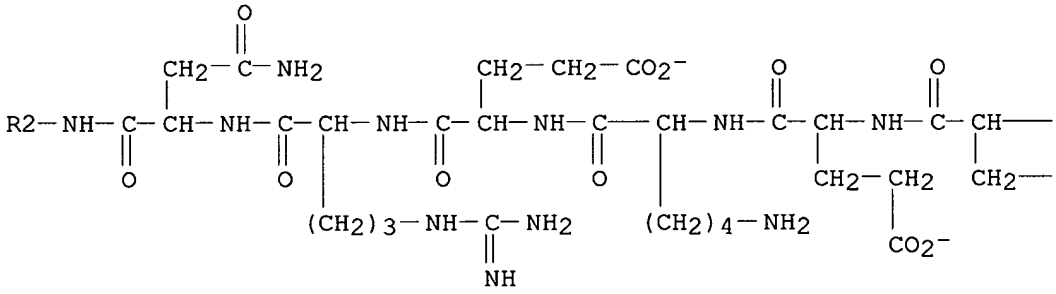

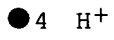

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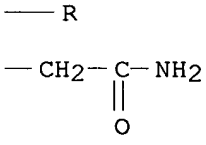

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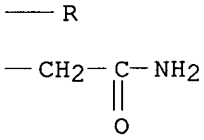
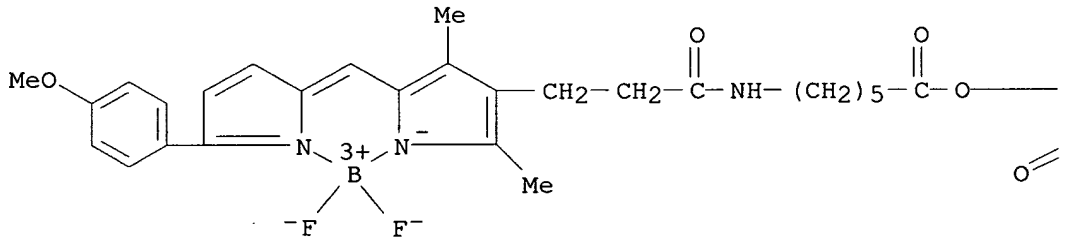
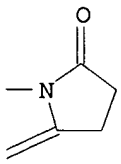


IT **217190-15-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of fluorescent motilin peptides)
RN 217190-15-3 HCAPLUS
CN Boron, [N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:892897 HCAPLUS
DOCUMENT NUMBER: 139:361224
TITLE: Human adipocyte cell populations and methods for identifying modulators of same
INVENTOR(S): Stevenson, Michael John; Kirkland, James L.
PATENT ASSIGNEE(S): Adipogenix, Inc., USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003093438	A2	20031113	WO 2003-US13758	20030501

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

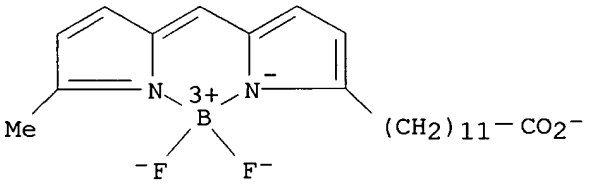
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-377500P P 20020501

AB The invention features methods of obtaining high-yield, essentially pure human preadipocyte cultures. Cultures obtained according to the instant methodol. are also featured as are methods of identifying adipogenic modulatory agents, e.g., high-throughput screening assays.

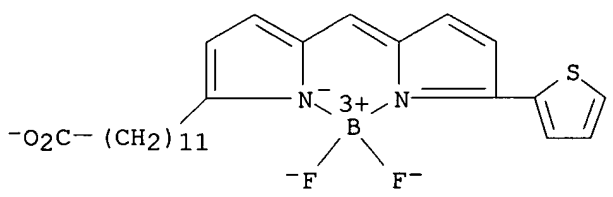
IT **144672-74-2 158757-84-7**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(human adipocyte cell populations and methods for identifying antiobesity agents)

RN 144672-74-2 HCAPLUS
CN Borate(1-), difluoro[5-[(5-methyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-dodecanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

RN 158757-84-7 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-dodecanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:818617 HCAPLUS
DOCUMENT NUMBER: 139:319657
TITLE: Screening for modulators of cAMP-protein kinase A signal transduction with transgenic cells expressing membrane-associated labeled protein kinase A
INVENTOR(S): Furger, Christophe; Lorenzo, Corinne
PATENT ASSIGNEE(S): Novaleads, Fr.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003085405	A1	20031016	WO 2003-FR1145	20030410
FR 2838453	A1	20031017	FR 2002-4537	20020411

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: FR 2002-4537 A 20020411

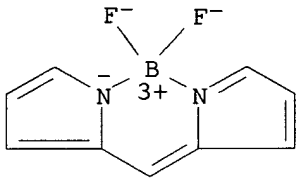
AB The invention concerns a method for selecting biol. active agents whereof the activity is expressed by a modulation of the transduction path of the cAMP/PKA signal. Said invention is based on the use of a cellular system comprising at least a genetically modified cell wherein are expressed a catalytic PKA subunit marked with a luminescent group, and a PKA regulator subunit translocated to the cell membrane. Thus, the invention enables reliable, simple and rapid detection of the dissocd. or complexed condition of the PKA through observation of the luminescent marking of a cell membrane or of the cytoplasm of the sensitive cell. The invention also concerns a cellular system adapted to the implementation of such a selection method. Thus, transgenic HEK293 cells expressing RII.alpha.-CAAX and GFP-C.alpha. fusion protein, when treated with

forskolin or cholera toxin, exhibited a decreased membrane-assocd. fluorescence and increased cytosolic fluorescence due to cAMP-induced dissocn. of R and C subunits. Alternatively, COS7 cells expressing the same protein kinase A subunits, and contg. dioctadecyl-1,1'-tetramethyl-3,3,3',3'-indocarbocyanine (DiI) in the cell membrane, were treated with isoproterenol. The resulting increased intracellular cAMP caused R-C dissocn., increased fluorescence of GFP-C.alpha. at 510 nm, and decreased fluorescence of DiI as 565 nm.

IT **138026-71-8**, Bodipy
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(C subunit labeled with; screening for modulators of cAMP-protein kinase signal transduction with transgenic cells expressing membrane-assocd. labeled protein kinase A)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:656943 HCAPLUS
DOCUMENT NUMBER: 139:210407
TITLE: Methods for the preparation of chemically misaminoacylated tRNA and compounds and methods for labeling proteins
INVENTOR(S): Olejnik, Jerzy; Krzymanska-Olejnik, Edyta; Mamaev, Sergey; Rothschild, Kenneth
PATENT ASSIGNEE(S): Ambergen, Inc., USA
SOURCE: PCT Int. Appl., 163 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068990	A1	20030821	WO 2003-US1392	20030117

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,

NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003219780 A1 20031127 US 2003-345664 20030116

PRIORITY APPLN. INFO.: US 2002-349841P P 20020117

OTHER SOURCE(S): MARPAT 139:210407

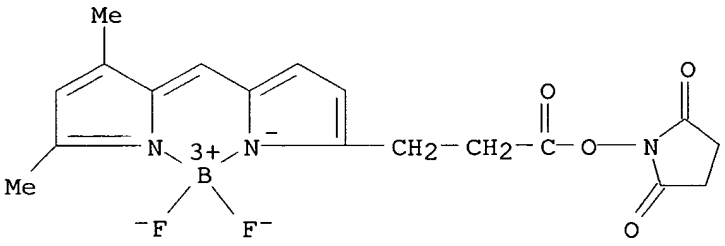
AB The present invention relates to methods for prepn. of chem. aminoacylated tRNAs for the purpose of introduction of markers into nascent proteins. The present invention also relates to methods for the non-radioactive labeling, detection, quantitation and isolation of nascent proteins translated in a cellular or cell-free translation system utilizing chem. aminoacylated tRNAs. TRNA mols. are misaminoacylated with non-radioactive markers which may be non-native amino acids, amino acid analogs, or derivs. Markers may comprise cleavable moieties, detectable labels, reporter properties wherein markers incorporated into protein can be distinguished from unincorporated markers, or coupling agents which facilitate the detection and isolation of nascent protein from other components of the translation system. Methods for chem. modifying proteins so as to introduce a marker are also disclosed. Thus, the compd. BODIPY-L-valine-pdCpA was synthesized. TRNA was digested with snake venom phosphodiesterase. The resulting truncated tRNA was ligated with the BODIPY-L-valine-pdCpA. The BODIPY-L-valyl-tRNA was used in in vitro translation systems to label such proteins as .alpha.-hemolysin. For chem. modifying proteins a bis(salicylhydroxyamic acid) (bis-SHA) linked via the carboxyl groups of L-glutamic acid was prepd. and reacted with BODIPY-FL. The resulting BODIPY-FL-bis-SHA was used to label a protein which had been modified with a phenyldiboronic acid deriv.

IT **146616-66-2 150173-72-1D,** BODIPY 558/568, conjugates with amino acids **165599-63-3D,** BODIPY-FL, conjugates with amino acids

RL: RCT (Reactant); RACT (Reactant or reagent)
(methods for prepn. of chem. misaminoacylated tRNA and compds. and methods for labeling proteins)

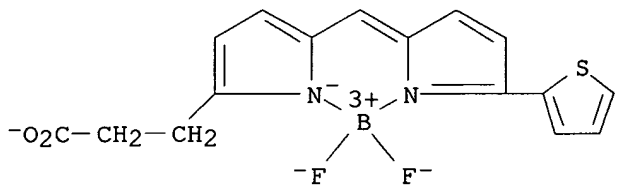
RN 146616-66-2 HCAPLUS

CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



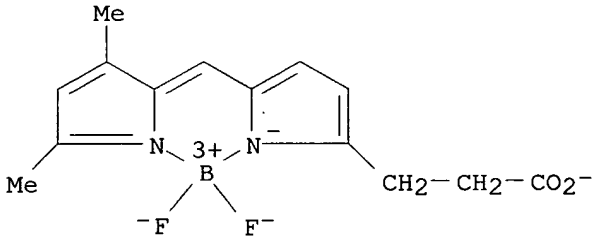
RN 150173-72-1 HCAPLUS

CN Borate(1-), difluoro[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

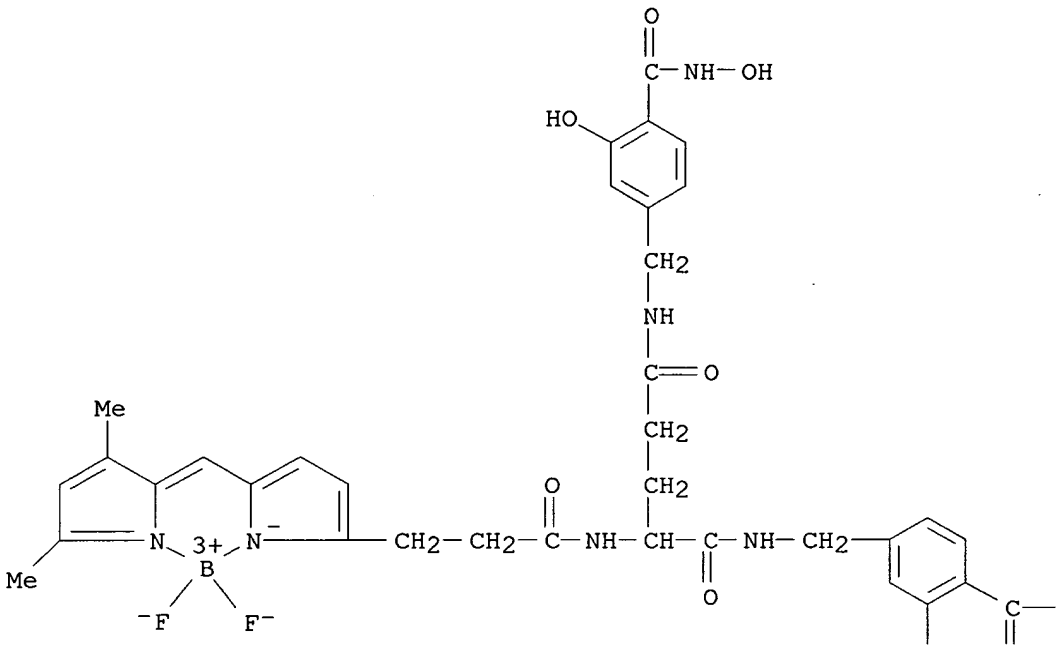
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

IT **583844-32-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods for prepn. of chem. misaminoacylated tRNA and compds. and methods for labeling proteins)
RN 583844-32-0 HCAPLUS
CN Boron, [(2S)-N,N'-bis[[4-[(hydroxyamino)carbonyl]-3-hydroxyphenyl]methyl]-2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]pentanediamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

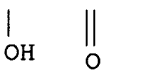
PAGE 1-A



PAGE 1-B

—NH—OH

PAGE 2-A



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:590711 HCAPLUS
DOCUMENT NUMBER: 139:129339
TITLE: Fluorophore-labeled peptides and FRET assays for clostridial toxins
INVENTOR(S): Steward, Lance E.; Fernandez-Salas, Ester; Aoki, Kei Roger
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 69 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

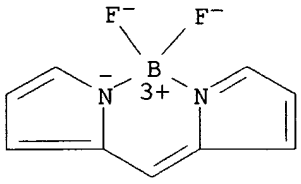
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003143651	A1	20030731	US 2001-942098	20010828
PRIORITY APPLN. INFO.:			US 2001-942098	20010828

AB The present invention provides clostridial toxin substrates useful in assaying for the protease activity of any clostridial toxin, including botulinum toxins of all serotypes as well as tetanus toxins. A clostridial toxin substrate of the invention contains a donor fluorophore; an acceptor having an absorbance spectrum overlapping the emission spectrum of the donor fluorophore; and a clostridial toxin recognition sequence that includes a cleavage site, where the cleavage site intervenes between the donor fluorophore and the acceptor and where, under the appropriate conditions, resonance energy transfer is exhibited between the donor fluorophore and the acceptor.

IT **138026-71-8D**, BODIPY, conjugates with peptides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorophore-labeled peptides and FRET assays for clostridial toxins)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

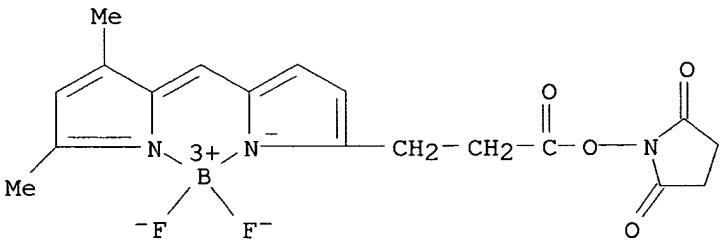
ACCESSION NUMBER: 2003:413773 HCAPLUS
DOCUMENT NUMBER: 138:398408
TITLE: Labeling proteins with dyes that are insoluble or only sparingly soluble in water
INVENTOR(S): Zhu, Mingde; Olech, Lee
PATENT ASSIGNEE(S): Bio-Rad Laboratories, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 4 pp., Cont.-in-part of U.S. Ser. No. 645,784, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003098235	A1	20030529	US 2002-278745	20021021
PRIORITY APPLN. INFO.:			US 2000-645784 B2	20000824

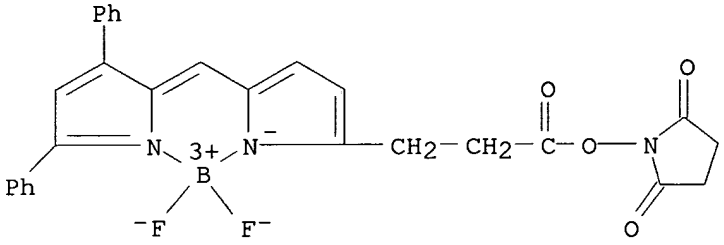
AB The proteins in a biol. sample that is sought to be analyzed for its protein compn. by an electrophoretic or chromatog. procedure are coupled to a dye in an unusually efficient manner by combining the sample with a solid dry compn. contg. the dye, a buffering agent, and in preferred embodiments, a denaturing agent as well. The solid and dry form of the compn. prevents the dye from deteriorating or decompg., and the combination of components in the compn. allows the dye to couple to the proteins in a relatively uniform manner with no overstaining of the protein when the compn. and the sample are heated together and held at an elevated temp. for a short period of time.

IT **146616-66-2 216961-93-2 235439-04-0**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(labeling proteins with dyes that are insol. or only sparingly sol. in water)

RN 146616-66-2 HCAPLUS
CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

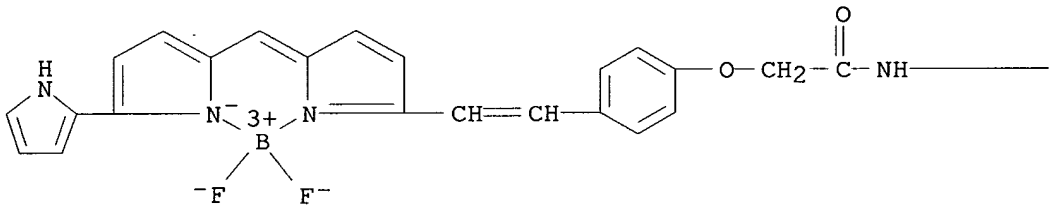


RN 216961-93-2 HCAPLUS
CN Boron, [1-[3-[5-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

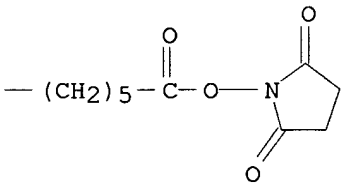


RN 235439-04-0 HCAPLUS
CN Boron, [2-[4-[2-[2-[([2,2'-bi-1H-pyrrol]-5-yl-.kappa.N1)methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]-N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]acetamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L7 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:376271 HCAPLUS
DOCUMENT NUMBER: 138:381146
TITLE: Methods for the detection, analysis and isolation of nascent proteins by labeling with reporter dyes using an aminoacyl-tRNA charged with a dye-conjugated amino acid
INVENTOR(S): Rothschild, Kenneth J.; Gite, Sadanand; Olejnik, Jerzy
PATENT ASSIGNEE(S): Ambergen, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 76 pp., Cont.-in-part of U.S. Ser. No. 49,332.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003092031	A1	20030515	US 2002-174368	20020618
US 6306628	B1	20011023	US 1999-382736	19990825
WO 2001014578	A1	20010301	WO 2000-US23233	20000823

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2003190643	A1	20031009	US 2002-264127	20021003

PRIORITY APPLN. INFO.:

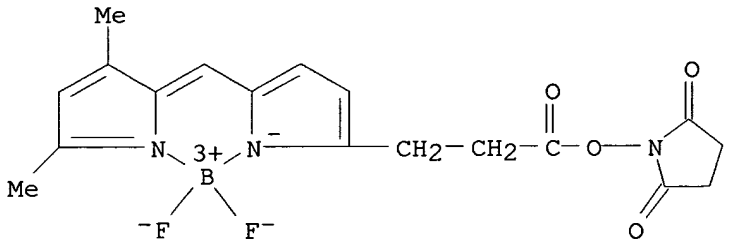
US 1999-382736	A1	19990825
WO 2000-US23233	W	20000823
US 2002-49332	A2	20020621
US 1999-382950	A	19990825
US 2001-813197	A1	20010320

AB A non-radioactive method of detection and anal. of nascent proteins translated within cellular or cell-free translation systems by labeling the nascent protein with a reporter dye is described. The core method involves charging a tRNA with an amino acid conjugated with a powerful fluorescent, preferably a deriv. of BODIPY (4,4-difluoro-4-bora-3a,4a-diaza-s-indacene). Alternatively, protein synthesis can be monitored by incorporating a dye-binding peptide into a protein. Binding of the dye to the protein, with a change in its spectral properties, can be used to monitor protein synthesis. Nascent proteins contg. these markers can be rapidly and efficiently detected, isolated and analyzed without the handling and disposal problems assocd. with radioactive reagents. Chem. synthesis of misaminoacylated tRNA-Lys by partial degrdn. of the 3'-end and resynthesis is demonstrated. The amino acid was also labeled with a photolabile biotin that allowed rapid recovery of the protein from cell-free translation with immobilized streptavidin. Lower limits of detection were in the range 0.3-10 ng protein.

IT **146616-66-2D**, BODIPY-FL-SE, amino acid conjugates
217190-15-3D, amino acid conjugates **217190-17-5D**,
BODIPY-FL-SSE, amino acid conjugates **335193-70-9D**,
BODIPY-R6G-SE, amino acid conjugates
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(incorporation into nascent proteins of; methods for detection, anal. and isolation of nascent proteins by labeling with reporter dyes using aminoacyl-tRNA charged with dye-conjugated amino acid)

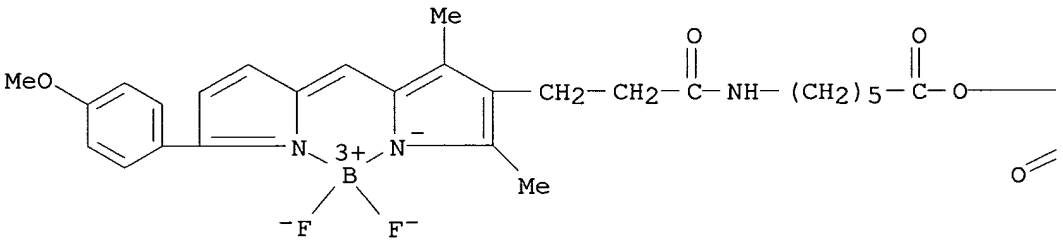
RN 146616-66-2 HCAPLUS

CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

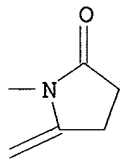


RN 217190-15-3 HCAPLUS
CN Boron, [N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

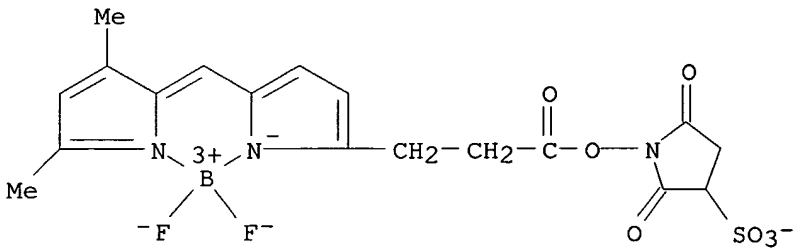
PAGE 1-A



PAGE 1-B

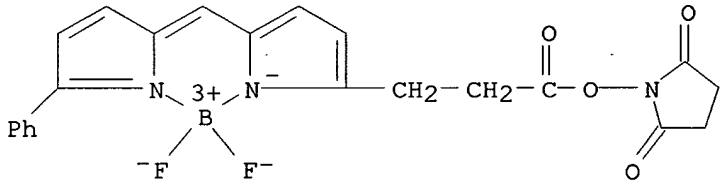


RN 217190-17-5 HCAPLUS
CN Borate(1-), [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-dioxo-3-pyrrolidinesulfonato(2-)]difluoro-, sodium, (T-4)- (9CI) (CA INDEX NAME)

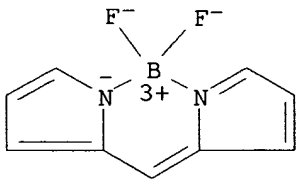


● Na^+

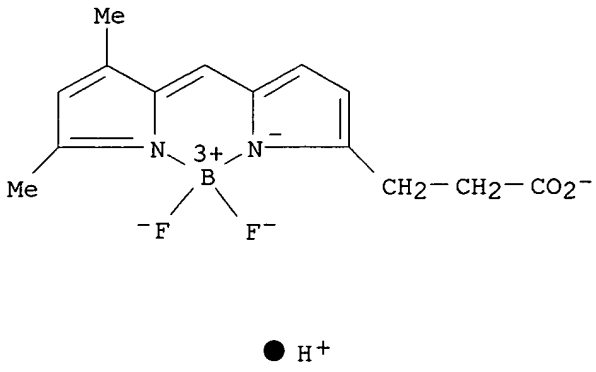
RN 335193-70-9 HCAPLUS
CN Boron, difluoro[1-[1-oxo-3-[5-[(5-phenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]propoxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



IT **138026-71-8D**, BODIPY, derivs., amino acid conjugates
165599-63-3D, BODIPY-FL, amino acid conjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(methods for detection, anal. and isolation of nascent proteins by labeling with reporter dyes using aminoacyl-tRNA charged with dye-conjugated amino acid)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:202827 HCAPLUS
DOCUMENT NUMBER: 138:216463
TITLE: polymorphism detection by bi-directional primer extension with labeled terminator nucleotides
INVENTOR(S): Kunkel, Mark; Gelfand, Craig
PATENT ASSIGNEE(S): Orchid Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020950	A2	20030313	WO 2002-US27262	20020827
WO 2003020950	A3	20030417		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003077584	A1	20030424	US 2001-941138	20010828

PRIORITY APPLN. INFO.: US 2001-941138 A 20010828

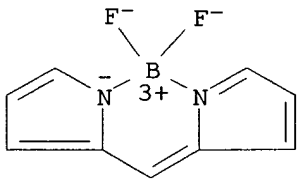
AB The present invention provides methods and compns. for detecting polymorphic sites by employing bi-directional primer extension reactions. In one embodiment, the present invention provides methods and compns. that minimize cost of reagents, such as labeled nucleotides, and minimize the cost of detection instrumentation. The term bidirectional or bidirectionally refers to primer extension occurring in an antiparallel fashion with respect to the upper and lower primers. Preferably, this bidirectional primer extension is done substantially simultaneously in one reaction well. Accordingly, the method of the present invention is adaptable for multiplex, high throughput genotyping of one or more

alleles. The bidirectional SNP detection method of the present invention in one embodiment, employs both upper and lower strand primers, one or more labeled nucleotides, and a single color label that can be detected by a single channel detection device. Primer sepn. is based upon unique primer tag features that allows for the economical detn. of polymorphic site. Advantages of the bidirectional single color reaction scheme of this invention, over the std. multicolor reaction scheme, are illustrated in Table A. Table A shows that the std. multicolor protocol requires the use of labeled nucleotides bearing different detectable signals, whereas the bidirectional single color scheme allows for one kind of detectable signal to be employed on any labeled nucleotides used in the assay. It is advantageous to employ nucleotides with only one kind of detectable characteristic in that it allows detection by a single channel detection device. Such devices are generally more economical than multichannel detection devices. Also, Table A also reveals that for two biallelic polymorphisms, A/T and G/C, only a single labeled nucleotide is required to successfully interrogate those alleles. This effectively reduces the cost of interrogating those alleles in half, because the majority of the cost of carrying out an interrogation reaction is assocd. with the cost of the labeled nucleotide.

IT **138026-71-8,** Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(terminating nucleotides labeled with; polymorphism detection by bi-directional primer extension with labeled terminator nucleotides)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:202825 HCAPLUS
DOCUMENT NUMBER: 138:233337
TITLE: FRET protease assays for botulinum serotype A/E toxins
INVENTOR(S): Steward, Lance E.; Fernandez-Salas, Ester; Aoki, Kei Roger
PATENT ASSIGNEE(S): Allergan, Inc., USA
SOURCE: PCT Int. Appl., 168 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020948	A2	20030313	WO 2002-US27145	20020822
WO 2003020948	A3	20030605		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

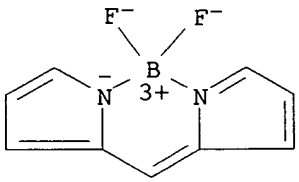
US 2003143650 A1 20030731 US 2001-942024 20010828
PRIORITY APPLN. INFO.: US 2001-942024 A 20010828

AB The present invention provides clostridial toxin substrates useful in assaying for the protease activity of botulinum serotype A/E toxins. A clostridial toxin substrate of the invention contains a donor fluorophore; an acceptor having an absorbance spectrum overlapping the emission spectrum of the donor fluorophore; and a clostridial toxin recognition sequence that includes a cleavage site, where the cleavage site intervenes between the donor fluorophore and the acceptor and where, under the appropriate conditions, resonance energy transfer is exhibited between the donor fluorophore and the acceptor.

IT **138026-71-8**, BODIPY
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(fluorescent donor, peptide substrate contg.; FRET protease assays for botulinum serotype A/E toxins)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:493428 HCAPLUS
DOCUMENT NUMBER: 137:348151
TITLE: Investigation of DNA-protein recognition by satellite hole spectra of labeling dye
AUTHOR(S): Chang, Ta-Chau; Lin, Jing-Jer; Lin, Kai-Chun; Lin, Yi-Chien; Huang, Wei-Chun; Yang, Yih-Pey; Cheng, Ji-Yen
CORPORATE SOURCE: Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, 106, Taiwan
SOURCE: Journal of Luminescence (2002), 98(1-4), 149-152
CODEN: JLUMA8; ISSN: 0022-2313
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

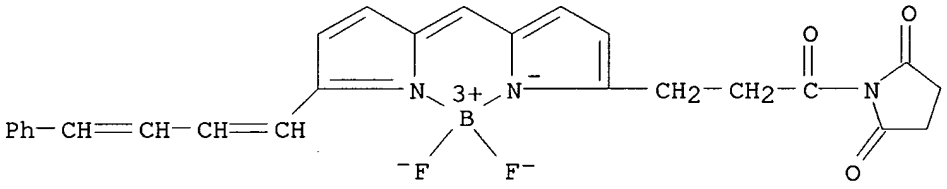
AB Satellite hole spectra of a bodipy deriv. covalently attached to the 5' end of various oligonucleotides are used to probe DNA-protein recognition.

The studies of the yeast telomere in the presence of Cdc13p telomere binding protein and the guanine quartet structure recognized by thrombin suggest that a proper structure of DNA is essential for DNA-protein recognition.

IT **474432-78-5**
RL: PRP (Properties)
(satellite hole spectra of bodipy deriv.-labeled oligonucleotides in relation to DNA-protein recognition)

RN 474432-78-5 HCAPLUS

CN Boron, difluoro[1-[1-oxo-3-[5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propyl]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

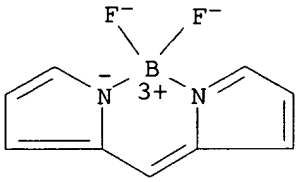
L7 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:462548 HCAPLUS
DOCUMENT NUMBER: 137:30228
TITLE: Use of a poly(amino-acid)-metal ion complex to link a label to a species of interest
INVENTOR(S): Twu, Jesse J.
PATENT ASSIGNEE(S): Molecular Devices Corporation, USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1215501	A1	20020619	EP 2001-310076	20011130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002132254	A1	20020919	US 2001-172	20011130

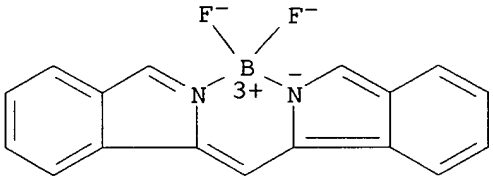
PRIORITY APPLN. INFO.: US 2000-250681P P 20001130

AB Systems, including compns. and methods, for purifying and/or labeling proteins or other mols. of interest and/or for assaying the conformational and/or binding states of such mols. are described. The compns. may include products having the formula T-P-M-L where T is a species, M is a metal ion, P is a peptide or protein that binds the metal ion, and L is a luminescent label. The methods may include purifying and/or labeling a mol. of interest, detecting luminescence energy transfer, detecting dissocn. and/or assocn. of a mol. or mols. of interest, detecting a conformational change in a mol. of interest, and detecting an analyte, among others.

IT **138026-71-8D**, Dipyrromethene boron difluoride, compds., conjugates with metal ion complexes **436139-07-0D**, compds., conjugates with metal ion complexes
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(poly(amino acid)-metal ion complexes to link labels to species of interest)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



RN 436139-07-0 HCAPLUS
CN Boron, difluoro[1-[(2H-isoindol-1-yl-.kappa.N)methylene]-1H-isoindolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:449855 HCAPLUS
DOCUMENT NUMBER: 137:30254
TITLE: Fluorescent labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technologies for in vitro analysis of protein interactions
INVENTOR(S): Yanagawa, Hiroshi; Doi, Nobuhide; Miyamoto, Etsuko; Takashima, Hideaki; Oyama, Rieko
PATENT ASSIGNEE(S): Keio University, Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046395	A1	20020613	WO 2001-JP10731	20011207

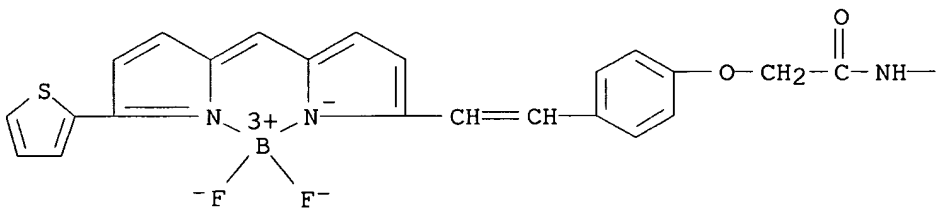
W: CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR
EP 1350846 A1 20031008 EP 2001-999645 20011207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR
PRIORITY APPLN. INFO.: JP 2000-373105 A 20001207
WO 2001-JP10731 W 20011207

AB A method for modifying protein C-terminal with a reagent which contains an acceptor region having a group capable of binding to a protein through a transpeptidation reaction and a modifying region contg. a modifier linked to the acceptor region via a nucleotide linker, is disclosed. A template contg. an ORF encoding a protein, a 5'-unntranslated region (UTR) contg. a promoter and an enhancer located in the 5'-side of the ORF and a 3'-terminal region contg. a PolyA sequence located in the 3'-side of the ORF is expressed to thereby synthesize a protein. The protein thus synthesized is then purified. The yield of the modified protein in the protein C-terminal modification method can be largely improved and protein interactions can be detected at an improved level in the method of detecting interactions among various mols. The authors developed and tested a simple method for fluorescence labeling and interaction anal. of proteins based on a highly efficient in vitro translation system combined with high-throughput technologies such as microarrays and fluorescence cross-correlation spectroscopy (FCCS). By use of puromycin analogs linked to various fluorophores through a deoxycytidylic acid linker, a single fluorophore can be efficiently incorporated into a protein at the carboxyl terminus during in vitro translation. The authors confirmed that the resulting fluorescently labeled proteins are useful for probing protein-protein and protein-DNA interactions by means of pulldown assay, DNA microarrays, and FCCS in model expts. These fluorescence assay systems can be easily extended to highly parallel anal. of protein interactions in studies of functional genomics. Interactions involving c-Fos, c-Jun, and DNA were studied by labeling with rhodamine green or Cy5 using puromycin-contg. modifying agents.

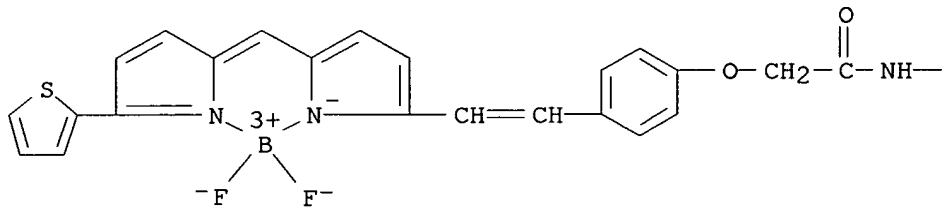
IT **436812-57-6 436812-58-7**
RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

RN 436812-57-6 HCAPLUS
CN Borate(2-), [2'-deoxy-5'-O-[1-hydroxy-1-oxido-10,17-dioxo-18-[4-[2-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]ethenyl]phenoxy]-2-oxa-9,16-diaza-1-phosphaoctadec-1-yl]cytidylyl-(3'.fwdarw.5')-3'-[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxyadenosinato(3-)]difluoro-, dihydrogen, (T-4)- (9CI) (CA INDEX NAME)

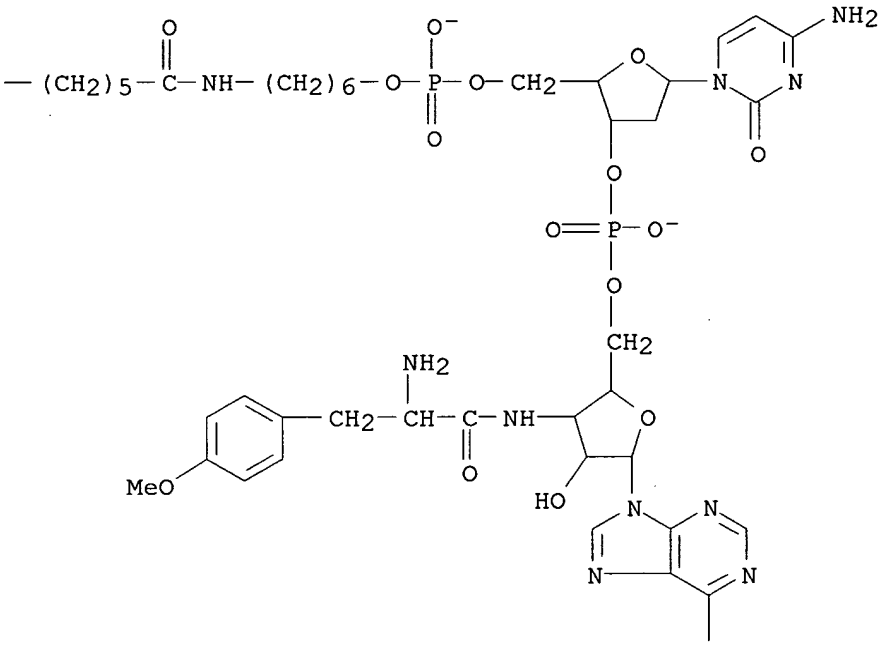
PAGE 1-A



PAGE 1-A



PAGE 1-B



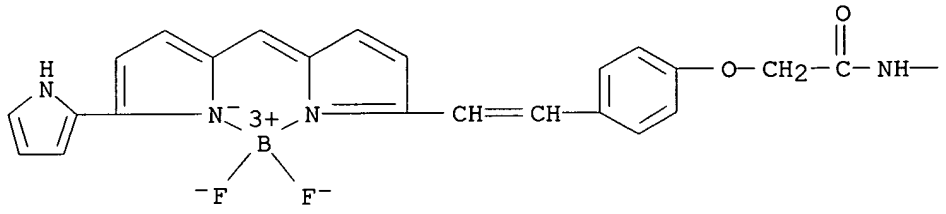
PAGE 2-A

● 2 H^+

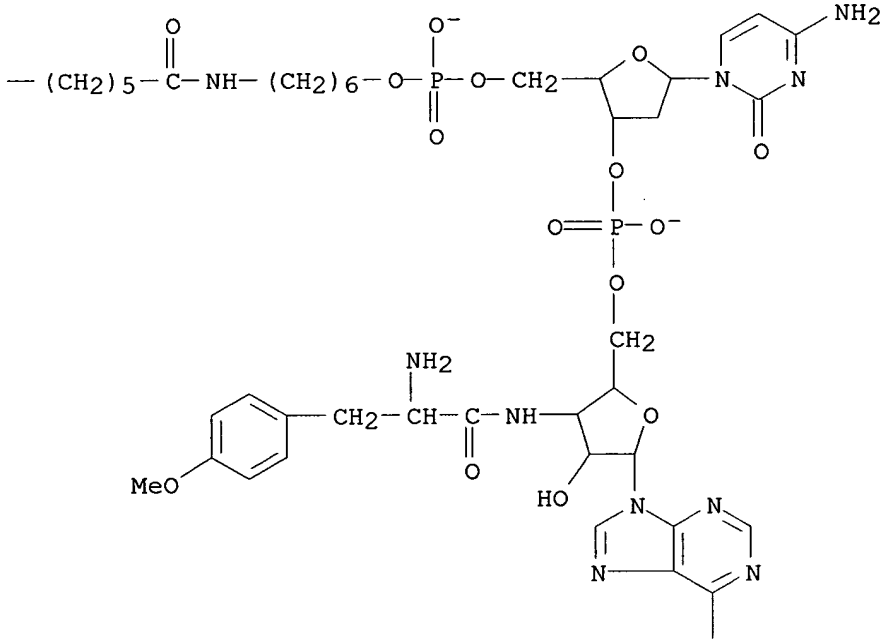
PAGE 2-B

RN 436812-58-7 HCAPLUS
CN Borate(2-), [5'-O-[18-[4-[2-[2-[([2,2'-bi-1H-pyrrol]-5-yl-.kappa.N1)methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]-1-hydroxy-1-oxido-10,17-dioxo-2-oxa-9,16-diaza-1-phosphaoctadec-1-yl]-2'-deoxycytidylyl-(3'.fwdarw.5')-3'-[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxyadenosinato(3-)]difluoro-, dihydrogen, (T-4)-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 2-A

2 H^+

PAGE 2-A

●2 H^+

PAGE 2-B

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:429481 HCAPLUS
DOCUMENT NUMBER: 137:2759
TITLE: Linker and method for solid phase combinatorial library screening
INVENTOR(S): Coffen, David L.; Pigliucci, Riccardo; Xiao, Xiao-yi
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

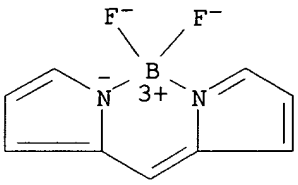
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002068367	A1	20020606	US 2001-975137	20011010

PRIORITY APPLN. INFO.: US 2000-239564P P 20001011

AB A high throughput screening method for detecting interactions between proteins, nucleic acids and small mols. comprises coating a solid support surface with a substance, such as streptavidin, that has a high affinity for a ligand, such as biotin, that may be readily attached to a library of compds. via a linker mol. The biotin linked library members are spotted onto the streptavidin in a pattern and screened for binding to other compds. of interest. Thus, it is possible to screen much smaller quantities of compds. than would be possible in a multiwell format. Due to the high affinity of biotin for streptavidin, there is no diffusion of the compds. on the solid support. Moreover, the method provides a high throughput, low cost screen that may be accomplished completely manually without the use of expensive fluid handling robots.

IT **138026-71-8D**, BODIPY, dye compds.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as tags; linker and method for solid phase combinatorial library screening)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:354022 HCAPLUS
DOCUMENT NUMBER: 136:366139
TITLE: Labeled peptides, proteins and antibodies and processes and intermediates useful for their preparation
INVENTOR(S): Hahn, Klaus M.; Toutchkine, Alexei; Muthyala, Rajeev; Kraynov, Vadim; Bark, Steven J.; Burton, Dennis R.; Chamberlain, Chester
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of Appl. No. PCT/US2000/26821.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002055133	A1	20020509	US 2001-839577	20010420
WO 2002028890	A1	20020411	WO 2000-US26821	20000929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2002008245	A2	20020131	WO 2001-US22194	20010713
WO 2002008245	A3	20030130		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1301473	A2	20030416	EP 2001-954689	20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-218113P A 20000713

WO 2000-US26821 A2 20000929
US 2001-279302P P 20010328
US 2001-839577 A 20010420
WO 2001-US22194 W 20010713

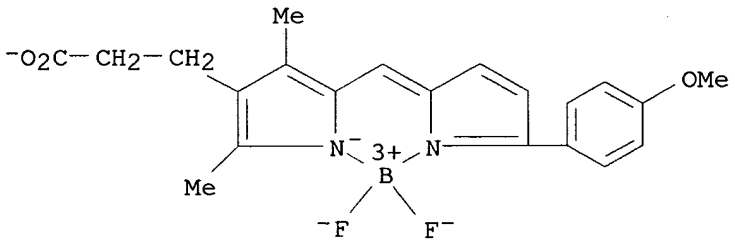
OTHER SOURCE(S): MARPAT 136:366139

AB The invention provides peptide synthons having protected functional groups for attachment of desired moieties (e.g. functional mols. or probes). Also provided are peptide conjugates prepd. from such synthons, and synthon and conjugate prepn. methods including procedures for identifying the optimum probe attachment site. Biosensors are provided having environmentally sensitive dyes that can locate specific biomols. within living cells and detect chem. and physiol. changes in those biomols. as the living cell is moving, metabolizing and reacting to its environment. Methods are included for detecting GTP activation of a Rho GTPase protein using polypeptide biosensors. When the biosensor binds GTP-activated Rho GTPase protein, the environmentally sensitive dye emits a signal of a different lifetime, intensity or wavelength than when not bound. New fluorophores whose fluorescence responds to environmental changes are also provided that have improved detection and attachment properties, and that can be used in living cells, or in vitro.

IT **287384-28-5DP**, BODIPY TMR, conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(BODIPY TMR; labeled peptides and proteins and antibodies and processes and intermediates useful in their prepn.)

RN 287384-28-5 HCAPLUS

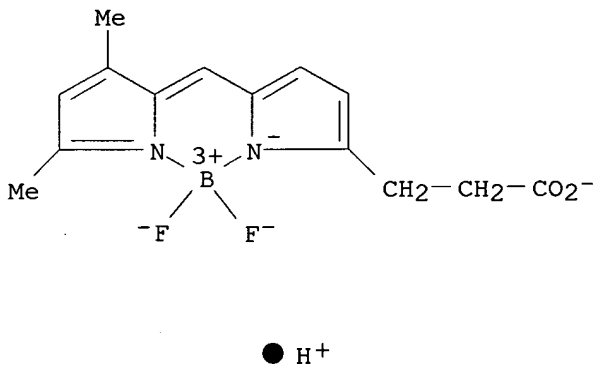
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



IT **165599-63-3DP**, BODIPY-FL, conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(labeled peptides and proteins and antibodies and processes and intermediates useful in their prepn.)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:293894 HCAPLUS
DOCUMENT NUMBER: 136:320313
TITLE: High throughput or capillary-based screening of libraries of compounds for biological activities
INVENTOR(S): Short, Jay M.; Keller, Martin; Lafferty, William Michael
PATENT ASSIGNEE(S): Diversa Corporation, USA
SOURCE: PCT Int. Appl., 229 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 40
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002031203	A2	20020418	WO 2001-US31806	20011010
WO 2002031203	C2	20030703		
WO 2002031203	A3	20030925		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 756201	B2	20030109	AU 2000-48933	20000731
AU 2000048933	A5	20001005		
US 2001041333	A1	20011115	US 2000-738871	20001215
US 2002048809	A1	20020425	US 2001-790321	20010221
US 2002086279	A1	20020704	US 2001-875412	20010606
US 6677115	B2	20040113		
US 2002015997	A1	20020207	US 2001-894956	20010627
AU 2002011642	A5	20020422	AU 2002-11642	20011010
EP 1364052	A2	20031126	EP 2001-979708	20011010
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-685432 A2 20001010

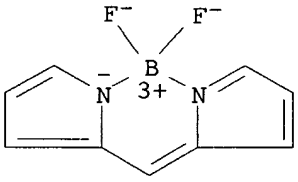
US 2000-738871	A2	20001215
US 2001-790321	A2	20010221
US 2001-894956	A2	20010627
US 2001-309101P	P	20010731
AU 1997-11489	A3	19961206
US 1997-876276	A2	19970616
US 1997-988224	A1	19971210
US 1998-98206	A2	19980616
US 1999-444112	A2	19991122
US 2000-636778	A2	20000811
US 2000-687219	A2	20001012
WO 2001-US31806	W	20011010

AB Provided is a method of screening or enriching a sample contg. polynucleotides from a mixed population of organisms. The method includes creating a DNA library from a plurality of nucleic acid sequences of a mixed population of organisms and sepg. clones contg. a polynucleotide sequence of interest on an analyzer detects a detectable mol. on a probe or bioactive substrate. Individual members of the library can be sepd. and analyzed using an ordered array of fine capillaries that can be used to take up individual members of the library. The capillary array may contain up to 1 million members. Methods of analyzing biol. activities, such as enzyme assays or reporter gene expression, are described. The analyzer includes FACS devices, SQUID devices and MSC devices. The sepd. or enrich library can then be further process by activity based screening or sequence based screening. In addn., the enriched sequence can be compared to a database and to identify sequences in the database which have homol. to a clone in the library thereby obtaining a nucleic acid profile of the mixed population of organisms.

IT **138026-71-8D**, Bodipy, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as fluorophores; high throughput or capillary-based screening of libraries of compds. for biol. activities)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:276272 HCAPLUS
DOCUMENT NUMBER:	136:306412
TITLE:	Dye-labeled peptide and method
INVENTOR(S):	Cook, Neil D.
PATENT ASSIGNEE(S):	Amersham Pharmacia Biotech UK Ltd., UK
SOURCE:	PCT Int. Appl., 38 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029407	A2	20020411	WO 2001-GB4462	20011003
WO 2002029407	A3	20020801		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001092118	A5	20020415	AU 2001-92118	20011003
EP 1322664	A2	20030702	EP 2001-972342	20011003
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004018579	A1	20040129	US 2003-398438	20030731

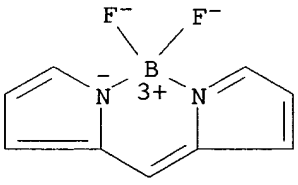
PRIORITY APPLN. INFO.: GB 2000-24351 A 20001004
WO 2001-GB4462 W 20011003

AB Disclosed is a peptide chain contg. one or more dye mols. covalently bonded thereto, characterized in that at least one dye mol. is interposed in the amino sequence forming the peptide chain such that there is at least one amino acid covalently linked to and on each side of the said at least one dye mol. Also disclosed is an assay method employing the dye-labeled compds. of the invention. The fluorescence intensity of Cy5Q-Asp-Glu-Val-Asp-Arg-Ser-Gly-Ser-Gly-Ser-Cy3-Ala-Leu-Thr-OH (prepn. given) was measured at intervals before and after addn. of trypsin or endoproteinase AspN. Protease-catalyzed hydrolysis of the compd. resulted in an increase in Cy3 signal as the quenching effect of Cy5Q was reduced.

IT **138026-71-8DP**, Dipyrromethene boron difluoride, compds., conjugates with peptides
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(dipyrromethene boron difluoride; dye-labeled peptide and method)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:256517 HCAPLUS
DOCUMENT NUMBER: 136:289901
TITLE: In vivo determination of specific mRNA levels using

labeled sequence-specific mRNA-binding proteins
INVENTOR(S): Busa, William Brian
PATENT ASSIGNEE(S): Cellomics, Inc., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002027031	A2	20020404	WO 2001-US30438	20010928
WO 2002027031	A3	20031106		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001094872	A5	20020408	AU 2001-94872	20010928
US 2003096243	A1	20030522	US 2001-965876	20010928

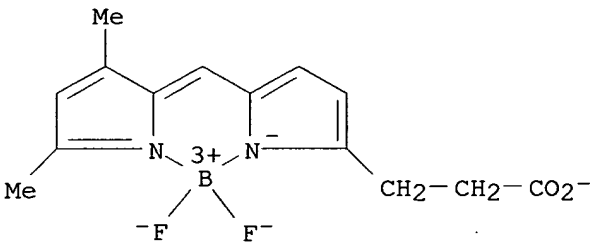
PRIORITY APPLN. INFO.: US 2000-236407P P 20000928
WO 2001-US30438 W 20010928

AB The present invention provides reagents and methods for mRNA quantification in intact cells. Cells expressing the gene of interest are modified to label the gene with a sequence bound by a sequence-specific RNA binding protein. The RNA is bound by the protein and if the protein is labeled with a suitable reporter dye, levels and distribution of the mRNA can be monitored fluorometrically. The protein may also carry a nuclear export signal to prevent it accumulating in the nucleus and preventing export of the bound mRNA. Dye pairs that may be used in FRET anal. are claimed.

IT **165599-63-3**, BODIPY FL **287384-28-5**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(RNA-binding proteins labeled with; in vivo detn. of specific mRNA levels using labeled sequence-specific mRNA-binding proteins)

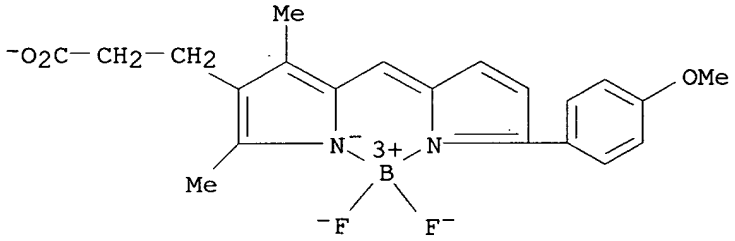
RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

RN 287384-28-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

L7 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:90063 HCAPLUS
DOCUMENT NUMBER: 136:163716
TITLE: Labeled peptides, proteins and antibodies and processes and intermediates useful for their preparation
INVENTOR(S): Hahn, Klaus M.; Toutchkine, Alexei; Muthyala, Rajeev; Kraynov, Vadim; Bark, Steven J.; Burton, Dennis R.; Chamberlain, Chester
PATENT ASSIGNEE(S): The Scripps Research Institute, USA
SOURCE: PCT Int. Appl., 158 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008245	A2	20020131	WO 2001-US22194	20010713

WO 2002008245 A3 20030130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2002028890 A1 20020411 WO 2000-US26821 20000929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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US 2002055133 A1 20020509 US 2001-839577 20010420
EP 1301473 A2 20030416 EP 2001-954689 20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

see above

PRIORITY APPLN. INFO.:
US 2000-218113P P 20000713
WO 2000-US26821 W 20000929
US 2001-279302P P 20010328
US 2001-839577 A 20010420
WO 2001-US22194 W 20010713

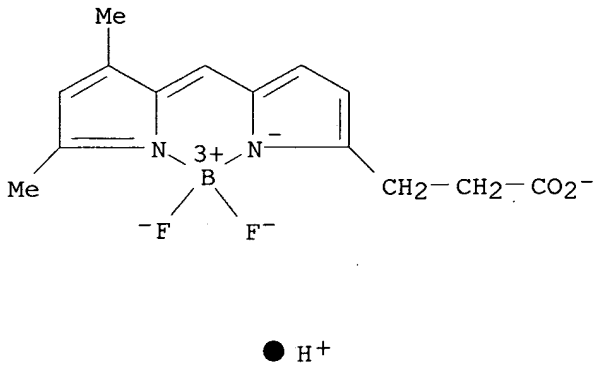
OTHER SOURCE(S): MARPAT 136:163716

AB The invention provides peptide synthons having protected functional groups for attachment of desired moieties (e.g. functional mols. or probes). Also provided are peptide conjugates prepd. from such synthons, and synthon and conjugate prepn. methods including procedures for identifying optimum probe attachment sites. Biosensors are provided having functional mols. that can locate and bind to specific biomols. within living cells. Biosensors can detect chem. and physiol. changes in those biomols. as living cells are moving, metabolizing and reacting to its environment. Methods are included for detecting GTP activation of a Rho GTPase protein using polypeptide biosensors. When the biosensor binds GTP-activated Rho GTPase protein, an environmentally sensitive dye emits a signal of a different lifetime, intensity or wavelength than when not bound. New fluorophores whose fluorescence responds to environmental changes are also provided that have improved detection and attachment properties, and that can be used in living cells, or in vitro.

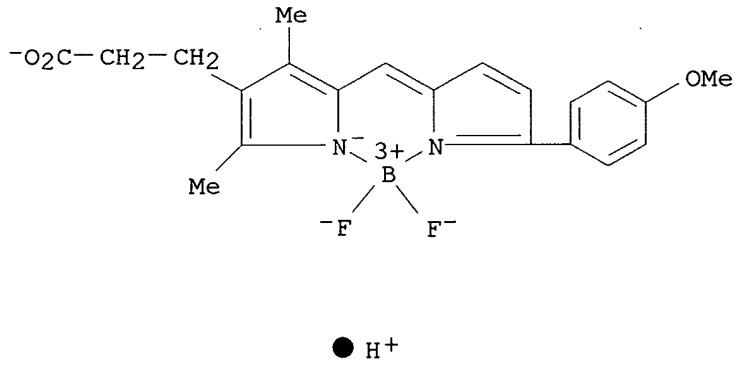
IT **165599-63-3DP**, BODIPY-FL, conjugates with peptides
287384-28-5DP, BODIPY TMR, conjugates with peptides
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(labeled peptides, proteins and antibodies and processes and intermediates useful for prepn.)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



RN 287384-28-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:526322 HCAPLUS
DOCUMENT NUMBER: 135:119243
TITLE: Multiplex flow assays preferably with magnetic particles as solid phase
INVENTOR(S): Watkins, Michael I.; Edwards, Richard B.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001008217	A1	20010719	US 1999-302920	19990430
US 2001054580	A1	20011227	US 2001-905338	20010713

PRIORITY APPLN. INFO.: US 1997-972563 B2 19971118

US 1999-302920 A3 19990430

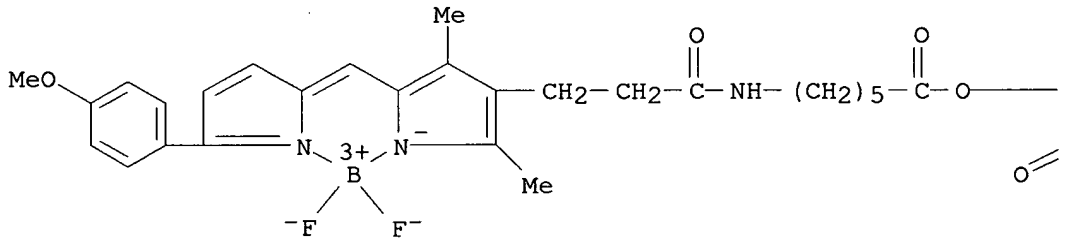
AB Heterogeneous assays for different analytes in a single biol. sample are performed simultaneously in a multiplexed assay that combines flow cytometry with the use of magnetic particles as the solid phase and yields an individual result for each analyte. The particles are distinguishable from each other by characteristics that permit them to be differentiated into groups, each group carrying an assay reagent bonded to the particle surface that is distinct from the assay reagents of particles in other groups. The magnetic particles facilitate sepn. of the solid and liq. phases, permitting the assays to be performed by automated equipment. Assays are also disclosed for the simultaneous detection of antibodies of different classes and a common antigen specificity or of a common class and different antigen specificities. Each type is accomplished by immunol. binding at the surfaces of two distinct solid phases in a sequential manner with dissocn. of the binding and washing of the solid phase in between the binding steps. Three types of magnetic beads coated with antigens of cytomegalovirus, herpes simplex virus 2, and rubella virus were reacted with patient samples in a simultaneous multi-analyte immunoassay. The beads were washed and the liq. phase was removed before the beads were further reacted with anti-human IgG-phycoerythrin conjugate. The samples were then injected into a flow cytometer.

IT **217190-15-3**, Bodipy TMR-X,SE
RL: PRP (Properties)
(Bodipy TMR-X, as fluorophore in comparison with phycoerythrin; multiplex flow assays preferably with magnetic particles as solid phase)

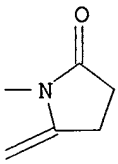
RN 217190-15-3 HCAPLUS

CN Boron, [N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L7 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:78554 HCAPLUS

DOCUMENT NUMBER: 134:128210
TITLE: Homogeneous fluorescence method for assaying structural modifications of biomolecules using double-labeled substrates
INVENTOR(S): Blumenthal, Donald K., II
PATENT ASSIGNEE(S): University of Utah Research Foundation, USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007638	A2	20010201	WO 2000-US40495	20000727
WO 2001007638	A3	20010816		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000076271	A5	20010213	AU 2000-76271	20000727
EP 1206699	A2	20020522	EP 2000-965572	20000727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: US 1999-145755P P 19990727
WO 2000-US40495 W 20000727

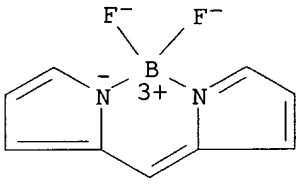
AB Double-labeled protein biomol. substrates and methods for the homogeneous assay of processes by which biomols. are covalently modified are described. The methods of the present invention utilize biomol. substrates labeled at two positions with two fluorescent dyes or with a fluorescent dye and a nonfluorescent dye. The two labeling dyes of the unmodified biomol. substrates stack, thereby quenching the substrate's fluorescence. Upon covalent modification of the double-labeled substrate, however, the intramolecularly stacked dyes dissoc. and the fluorescence of the phosphorylated substrate changes markedly. Methods utilizing the double-labeled substrates of the present invention do not require phys. sepn. of modified and unmodified substrate mols., nor do they require other special reagents or radioactive materials. Methods for prepg. and characterizing the substrates used in the assay procedure are described, as are methods utilizing the substrates of the present invention for high-throughput screening, for monitoring intracellular processes of covalent biomol. modification in living cells, for diagnostic and therapeutic applications for diseases involving dysfunctional processes of covalent biomol. modification, and for discovering novel enzymic substrates. A synthetic KID peptide was prepd. and double-labeled with tetramethylrhodamine-5-maleimide and 5-carboxyfluorescein, succinimidyl ester or 5-carboxytetramethylrhodamine, succinimidyl ester. These substrates can be used to assay for protein kinase A as the phosphorylated substrates have detectable changes in the absorbance and fluorescence characteristics of the dyes included in the substrates.

IT **138026-71-8D**, BODIPY, conjugates with biomol. substrates

RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); RCT (Reactant); ANST (Analytical study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(homogeneous fluorescence method for assaying structural modifications of biomols. using double-labeled substrates)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:56885 HCAPLUS

DOCUMENT NUMBER: 134:112227

TITLE: Fluorescent-labeled oligopeptide for monitoring PKA-mediated phosphorylation

INVENTOR(S): Kudo, Yoshihisa; Azuma, Hideyoshi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001019700	A2	20010123	JP 1999-192559	19990707

PRIORITY APPLN. INFO.: JP 1999-192559 19990707

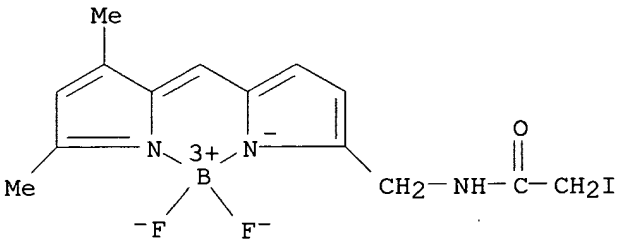
AB Fluorescent indicator-labeled substrates for visual detection of protein kinases are disclosed. The use of BODIPY FL C1-IA for labeling the C-terminal cysteine of the peptide for protein kinase A visualization is discussed. A fluorescent-labeled oligopeptide contg. a consensus amino acid sequence for cAMP dependent protein kinase A (PKA) phosphorylation site, derived from DARPP-32 (dopamine-and cAMP-regulated phosphoprotein) was designed. The fluorescent peptide was a good substrate of PKA, and the phosphorylation of its serin residue caused an intensive change in fluorescent intensity. Dephosphorylation of the peptide by calcineurin was also detected by the decrease in fluorescent intensity. Those changes in fluorescent intensity was blocked by the PKA inhibitor H89. We expect that the peptide will be useful as a fluorescent indicator for monitoring PKA activity in living cells.

IT **217190-02-8**, BODIPY FL C1-IA
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent-labeled oligopeptide for monitoring PKA-mediated phosphorylation)

RN 217190-02-8 HCAPLUS

CN Boron, [N-[[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-

pyrrol-2-yl-.kappa.N]methyl]-2-iodoacetamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:50773 HCAPLUS
DOCUMENT NUMBER: 134:97526
TITLE: C-terminal protein tagging with puromycin tags
INVENTOR(S): Lohse, Peter; McPherson, Michael; Kuimelis, Robert G.
PATENT ASSIGNEE(S): Phylos, Inc., USA
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001004265	A2	20010118	WO 2000-US40347	20000711
WO 2001004265	A3	20010405		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000071338	A5	20010130	AU 2000-71338	20000711
EP 1194594	A2	20020410	EP 2000-960132	20000711
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
NZ 515292	A	20030829	NZ 2000-515292	20000711
US 6660473	B1	20031209	US 2000-614264	20000712

PRIORITY APPLN. INFO.: US 1999-143339P P 19990712
WO 2000-US40347 W 20000711

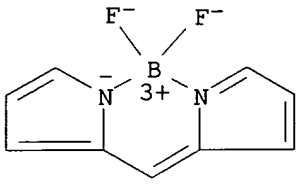
AB In general, the invention features proteins having covalently bonded C-terminal puromycin tags and methods for their prodn. The myc epitope and the fibronectin type III domain were each tagged using DNA transcripts devoid of stop codons, ligation of dA30 to RNA to facilitate ribosomal stalling, and translation in rabbit reticulocyte lysate. Biotin-TEG-dCdC-puromycin was added to the stalled translation reaction and labeling was allowed to take place. Tagged proteins were immobilized

on a microscope slide or chip prefunctionalized with NeutrAvidin.

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)
(as tag; C-terminal protein tagging with puromycin tags)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:808571 HCAPLUS

DOCUMENT NUMBER: 133:345548

TITLE: Detection of nucleic acids in the cytoplasm using probes labeled with moieties blocking entry into the nucleus

INVENTOR(S): Tsuji, Akihiko; Hirano, Masahiko; Koshimoto, Hiroyuki; Ishibashi, Kaname

PATENT ASSIGNEE(S): Laboratory of Molecular Biophotonics, Japan; Hamamatsu Photonics KK

SOURCE: Eur. Pat. Appl., 53 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1052293	A1	20001115	EP 1999-126030	19991227
EP 1052293	B1	20031217		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001025400	A2	20010130	JP 1999-373904	19991228
US 6228592	B1	20010508	US 1999-476256	19991230

PRIORITY APPLN. INFO.: JP 1999-131838 A 19990512

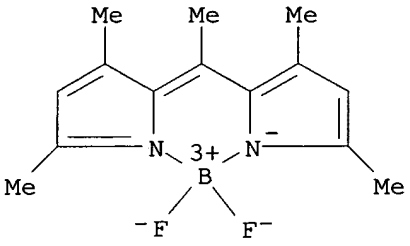
AB Detection probes labeled with fluorescent dyes are conjugated to moieties that do not pass through the nuclear membrane are described for use in the detection of nucleic acids in the cytoplasm without interference from the content of the nucleus. Suitable blocking substances are limited only being too large to pass through nuclear membrane pores and may be proteins or polysaccharides, such as dextrans, or metals such as colloidal gold. The probes are introduced into the cytoplasm of a living cell in which the target nucleic acid is present, and the target nucleic acid is detected by measurement of the change in fluorescence of the fluorescent dyes due to the formation of a hybrid of the target nucleic acid and the probes. Use of a Bodipy/Cy5 pair to detect c-fos mRNA in COS7 cells is demonstrated

using streptavidin as the transport blocking group.

IT **121207-31-6**, Bodipy 493/503
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(as reporter moiety; detection of nucleic acids in cytoplasm using probes labeled with moieties blocking entry into nucleus)

RN 121207-31-6 HCAPLUS

CN Boron, [2-[1-(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)ethyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:649426 HCAPLUS

DOCUMENT NUMBER: 134:14821

TITLE: Printing proteins as microarrays for high-throughput function determination

AUTHOR(S): MacBeath, Gavin; Schreiber, Stuart L.

CORPORATE SOURCE: Center for Genomics Research, Harvard University, Cambridge, MA, 02138, USA

SOURCE: Science (Washington, D. C.) (2000), 289(5485), 1760-1763
CODEN: SCIEAS; ISSN: 0036-8075

PUBLISHER: American Association for the Advancement of Science

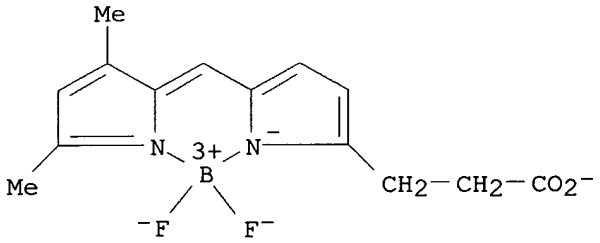
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Systematic efforts are currently under way to construct defined sets of cloned genes for high-throughput expression and purifn. of recombinant proteins. To facilitate subsequent studies of protein function, we have developed miniaturized assays that accommodate extremely low sample vols. and enable the rapid, simultaneous processing of thousands of proteins. A high-precision robot designed to manuf. complementary DNA microarrays was used to spot proteins onto chem. derivatized glass slides at extremely high spatial densities. The proteins attached covalently to the slide surface yet retained their ability to interact specifically with other proteins, or with small mols., in soln. Three applications for protein microarrays were demonstrated: screening for protein-protein interactions, identifying the substrates of protein kinases, and identifying the protein targets of small mols.

IT **165599-63-3D**, BODIPY-FL, conjugates with IgG, immobilized protein G response to
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(printing proteins as microarrays for high-throughput function detn.)

RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:260581 HCAPLUS
DOCUMENT NUMBER: 132:289573
TITLE: Fluorescent probes for chromosomal painting
INVENTOR(S): Cherif, Dorra
PATENT ASSIGNEE(S): Genset, Fr.
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000022164	A1	20000420	WO 1999-FR2517	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2784683	A1	20000421	FR 1998-12957	19981015
FR 2784683	B1	20021213		
CA 2345381	AA	20000420	CA 1999-2345381	19991015
AU 9960981	A1	20000501	AU 1999-60981	19991015
AU 769073	B2	20040115		
EP 1121461	A1	20010808	EP 1999-947589	19991015
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

JP 2002527077	T2	20020827	JP 2000-576054	19991015
US 6562959	B1	20030513	US 1999-418804	19991015
US 2003099989	A1	20030529	US 2002-251699	20020919

PRIORITY APPLN. INFO.: FR 1998-12957 A 19981015
US 1999-418804 A3 19991015
WO 1999-FR2517 W 19991015

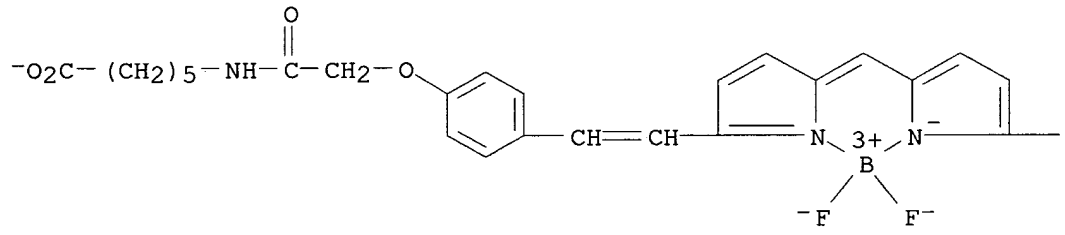
AB The invention concerns fluorescent probes used in multicolor in situ fluorescent hybridization methods, and principally chromosomal painting. The probes designed for marking a chromosome are such that they consist of a set of DNA segments more represented in certain chromosomal bands and are obtained by Interspersed Repeated Sequence-PCR amplification from said chromosomes using PCR primers specific for the repeated and dispersed DNA sequences Alu and LINE. The invention further concerns methods for producing said probes, multicolor FISH methods capable of using said probes, and diagnostic kits comprising them. The invention also concerns combinations of fluorophores and optical filters.

IT **209340-49-8DP**, BODIPY 630/650, conjugates with probes
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(BODIPY 630/650; fluorescent probes for chromosomal painting)

RN 209340-49-8 HCAPLUS

CN Borate(1-), difluoro[6-[[[4-[2-[2-[[5-(2-thienyl)-1H-pyrrol-2-yl-.kappa.N]methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]acetyl]amino]hexanoato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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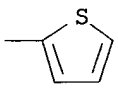
PAGE 1-B



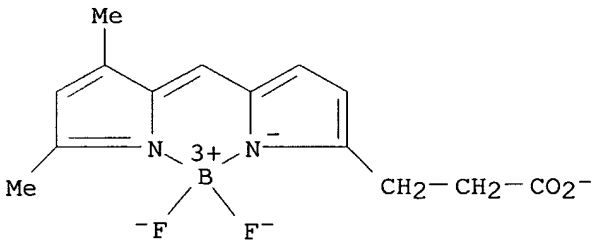
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:156102 HCAPLUS
DOCUMENT NUMBER: 133:71038
TITLE: Ultrasensitive Fluorescence-Based Detection of Nascent Proteins in Gels
AUTHOR(S): Gite, Sadanand; Mamaev, Sergey; Olejnik, Jerzy; Rothschild, Kenneth
CORPORATE SOURCE: AmberGen, Inc., Boston, MA, 02215, USA
SOURCE: Analytical Biochemistry (2000), 279(2), 218-225
CODEN: ANBCA2; ISSN: 0003-2697
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

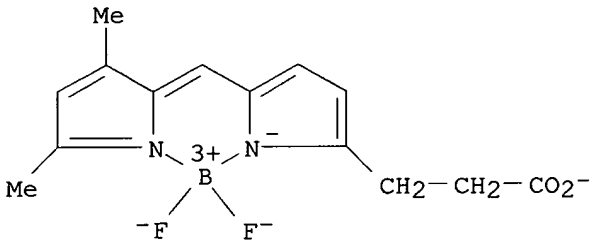
AB The most common method of anal. of proteins synthesized in a cell-free translation system (e.g., nascent proteins) involves the use of radioactive amino acids such as [35S]methionine or [14C]leucine. We report a sensitive, nonisotopic, fluorescence-based method for the detection of nascent proteins directly in polyacrylamide gels. A fluorescent reporter group is incorporated at the N-terminus of nascent proteins using an Escherichia coli initiator tRNAfmet misaminoacylated with methionine modified at the .alpha.-amino group. In addn. to the normal formyl group, we find that the protein translational machinery accepts BODIPY-FL, a relatively small fluorophore with a high fluorescent quantum yield, as an N-terminal modification. Under the optimal conditions, fluorescent bands from nanogram levels of in vitro-produced proteins could be detected directly in gels using a conventional UV-transilluminator. Higher sensitivity (.apprx.100-fold) could be obtained using a laser-based fluorescent gel scanner. The major advantages of this approach include elimination of radioactivity and the rapid detection of the protein bands immediately after electrophoresis without any downstream processing. The ability to rapidly synthesize nascent proteins contg. an N-terminal tag facilitates many biotechnol. applications including functional anal. of gene products, drug discovery, and mutation screening. (c) 2000 Academic Press.

IT **165599-63-3**, BODIPY-FL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)

RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

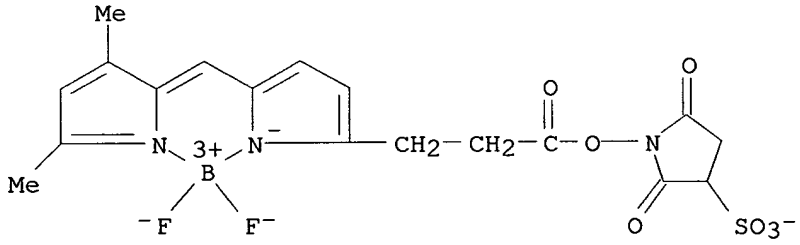


H^+



● H^+

IT **217190-17-5**, BODIPY FL,SSE
RL: RCT (Reactant); RACT (Reactant or reagent)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
RN 217190-17-5 HCAPLUS
CN Borate(1-), [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-dioxo-3-pyrrolidinesulfonato(2-)]difluoro-, sodium, (T-4)- (9CI) (CA INDEX NAME)



● Na^+

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

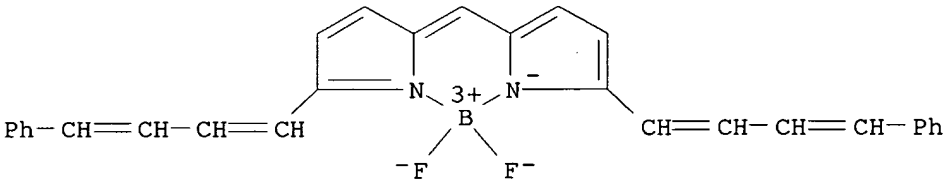
L7 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:19122 HCAPLUS
DOCUMENT NUMBER: 132:321161
TITLE: Multiple fluorescence labelling of proteins, lipids and whey in dairy products using confocal microscopy
AUTHOR(S): Herbert, Sophie; Bouchet, Brigitte; Riaublanc, Alain; Dufour, Eric; Gallant, Daniel J.
CORPORATE SOURCE: Unite d'etude des interactions des molecules alimentaires, Nantes, 44316, Fr.
SOURCE: Lait (1999), 79(6), 567-575
CODEN: LAITAG; ISSN: 0023-7302
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Texture optimization of dairy products is a major aim for manufacturers. A better knowledge of the structure and spatial organization of their main components would allow the optimization of their texture. In this study, using confocal scanning laser microscopy, a multiple fluorescent labeling of proteins, lipids and whey was developed to visualize these main components simultaneously in dairy products. Different extrinsic fluorescent probes were tested by confocal microscopy and fluorescence spectroscopy. Fuchsin acid, Bodipy 665/676 and DM-NERF were selected to label proteins, lipids and whey, resp. Methods for selecting stable and specific fluorescent probes and for obtaining the multiple fluorescent labeling are presented. An application example on a dairy gel is also shown.

IT **164106-16-5**, Bodipy 665/676
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(multiple fluorescence labeling of proteins, lipids and whey in dairy products using confocal microscopy)

RN 164106-16-5 HCAPLUS

CN Boron, difluoro[2-[(1E,3E)-4-phenyl-1,3-butadienyl]-5-[[5-[(1E,3E)-4-phenyl-1,3-butadienyl]-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:12753 HCAPLUS
DOCUMENT NUMBER: 132:61274
TITLE: Method for studying interactions of cellular molecules and their localization in cells using fluorescent-labeled fusion proteins
INVENTOR(S): Paysan, Jacques; Antz, Christof
PATENT ASSIGNEE(S): Germany
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 969284	A1	20000105	EP 1999-112544	19990701
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19829495	A1	20000105	DE 1998-19829495	19980702

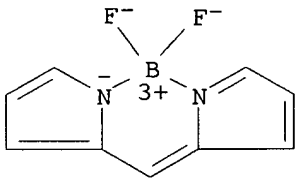
PRIORITY APPLN. INFO.: DE 1998-19829495 A 19980702

AB The invention concerns the localization of cellular processes by using fluorescence labeled fusion proteins that contain a membrane-translocating peptide and the affinity protein to the target mol. (antibody) and detecting by fluorescence resonance energy transfer (FRET) based on the interaction of fluorescent green protein or its analogs that form fusion proteins with the target mol. in the cell and the fluorescent labeled protein that is transported into the cell. Membrane-translocating peptides are 16 amino acid fragments of antennapedia homeodomain peptide and a point mutation of that peptide. Target-specific peptides are selected with phage display or yeast-2-hybrid interaction screening. Various fluorescent indicators are used, e.g. BODIPY, fluorescein, etc. The method is used to study bacterial, insect, yeast or mammalian cells by FRET-microscopy or FACS.

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(method for studying interactions of cellular mols. and localization in cells using fluorescent-labeled fusion proteins)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:753426 HCAPLUS
DOCUMENT NUMBER: 132:440
TITLE: Methods and agents for measuring and controlling multidrug resistance
INVENTOR(S): Simon, Sanford I.; Schindler, Melvin S.
PATENT ASSIGNEE(S): The Rockefeller University, USA; Board of Trustees Operating Michigan State University
SOURCE: PCT Int. Appl., 154 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9960398	A1	19991125	WO 1999-US10887	19990518
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 2002042079	A1	20020411	US 1998-80739	19980518

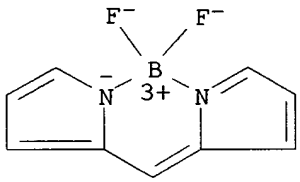
AU 9941896 A1 19991206 AU 1999-41896 19990518
PRIORITY APPLN. INFO.: US 1998-80739 A 19980518
US 1994-190336 B1 19940201
US 1995-379875 B2 19950127
US 1995-535955 A2 19950928
WO 1999-US10887 W 19990518

AB The effect of the pH of intracellular vesicular compartments and intracellular vesicular transport on multidrug resistance (MDR) of tumor cells is examd. The invention comprises in one aspect the treatment of MDR by administering a therapeutically effective amt. of a pH modulator and/or a compd. that can interfere with the vesicular transport of an intracellular vesicular compartment. Diagnostic utilities are contemplated and extend to drug discovery assays and methods for measuring monitoring the status of the onset or development of MDR, as well as the measurement of intracellular drug accumulation. Therapeutic compns. include a compn. comprising a pH modulator alone or in combination with the dose-limited therapeutic agent(s), and a pharmaceutically acceptable excipient, are also contemplated.

IT **138026-71-8**, Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as label of markers in vesicular transport detn.; methods and agents for measuring and controlling multidrug resistance in tumor cells by detg. vesicular transport and effect of pH and using pH modulators)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:688481 HCAPLUS
DOCUMENT NUMBER: 132:102348
TITLE: Simultaneous Assay of Src SH3 and SH2 Domain Binding Using Different Wavelength Fluorescence Polarization Probes
AUTHOR(S): Lynch, Berkley A.; Minor, Charles; Loiacono, Kara A.; van Schravendijk, Marie Rose; Ram, Mary K.; Sundaramoorthi, Raji; Adams, Susan E.; Phillips, Tom; Holt, Dennis; Rickles, Richard J.; MacNeil, Ian A.
CORPORATE SOURCE: ARIAD Pharmaceuticals Inc., Cambridge, MA, 02139, USA
SOURCE: Analytical Biochemistry (1999), 275(1), 62-73
CODEN: ANBCA2; ISSN: 0003-2697
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Pp60c-src is a prototypical nonreceptor tyrosine kinase and may play a

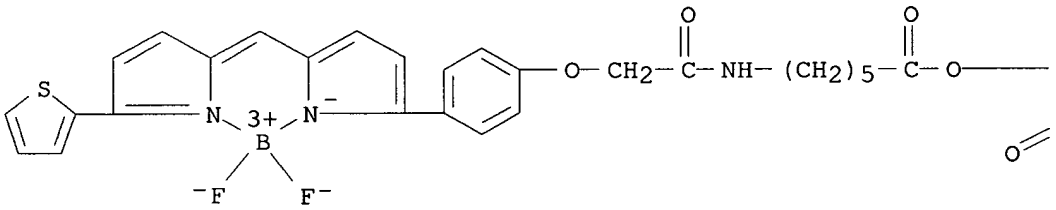
role in diseases as diverse as cancer and osteoporosis. In Src, the SH3 domain (Src homol. 3) binds proteins at specific, proline-rich sequences, while the SH2 domain (Src homol. 2) binds phosphotyrosine-contg. sequences. Inhibition of Src SH3 and SH2 domain function is of potential therapeutic value because of their importance in signaling pathways involved in disease states. We have developed dual-wavelength fluorescent peptide probes for both the Src SH3 and the Src SH2 domains, which allow the simultaneous measurement of compds. binding to each domain in assays based on the technique of fluorescence polarization. We demonstrate the utility of these probes in a dual-binding assay (suitable for high-throughput screening) to study the interactions of various peptides with these domains, including a sequence from the rat protein p130CAS which has been reported to bind simultaneously to both Src SH3 and SH2 domains. Utilizing this dual-binding assay, we confirm that sequences from p130CAS can simultaneously bind Src via both its SH3 and its SH2 domains. We also use the dual-binding assay as an internal control to identify substances which inhibit SH3 and SH2 binding via nonspecific mechanisms. (c) 1999 Academic Press.

IT **197306-80-2**, BODIPY TR-X, SE
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(BODIPY TR-X, SE; simultaneous assay of src SH3 and SH2 domain binding using different wavelength fluorescence polarization probes for high-throughput screening)

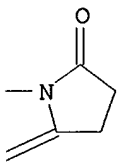
RN 197306-80-2 HCAPLUS

CN Boron, [N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-2-[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]acetamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



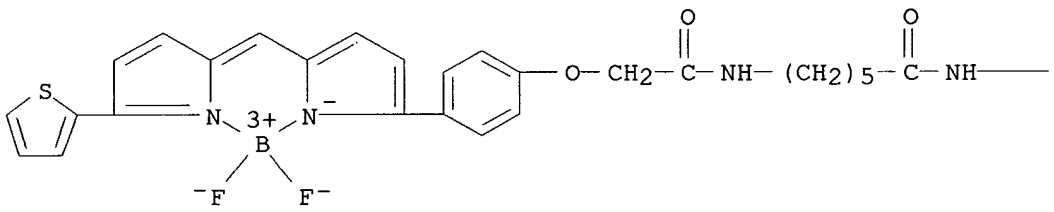
IT **255830-49-0**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
(simultaneous assay of src SH3 and SH2 domain binding using different

wavelength fluorescence polarization probes for high-throughput screening)

RN 255830-49-0 HCAPLUS

CN Borate(2-), difluoro[N-[1-oxo-6-[[[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]acetyl]amino]hexyl]-O-phosphono-L-tyrosyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-isoleucinamidato(3-)]-, dihydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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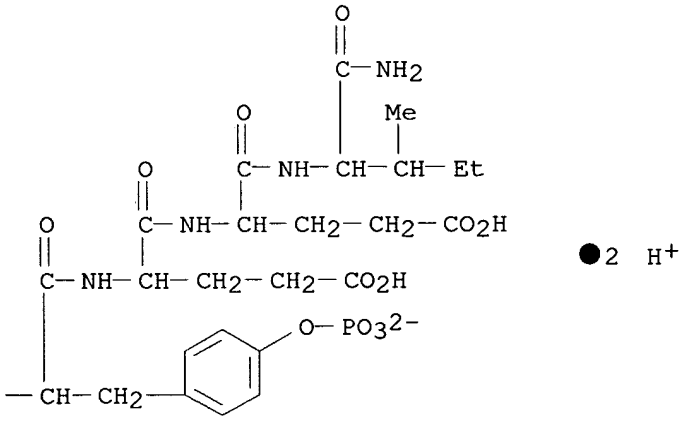


REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:577047 HCAPLUS
DOCUMENT NUMBER: 131:210063
TITLE: Fluorescence polarization screening method for gene-expressed biological compounds
INVENTOR(S): Kongsbak, Lars; Jorgensen, Kristian Skovgaard; Valbjorn, Jesper; Jorgensen, Christel Thea; Husum, Tommy Lykke; Ernst, Steffen; Moller, Soren
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9945143	A2	19990910	WO 1999-DK112	19990305
WO 9945143	A3	19991021		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2322488	AA	19990910	CA 1999-2322488	19990305
AU 9926122	A1	19990920	AU 1999-26122	19990305
EP 1058738	A2	20001213	EP 1999-906092	19990305
EP 1058738	B1	20011114		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
AT 208828	E	20011115	AT 1999-906092	19990305
EP 1156122	A2	20011121	EP 2001-118580	19990305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2002505114	T2	20020219	JP 2000-534674	19990305
PT 1058738	T	20020531	PT 1999-99906092	19990305
ES 2168848	T3	20020616	ES 1999-906092	19990305

PRIORITY APPLN. INFO.:
DK 1998-308 A 19980306
EP 1999-906092 A3 19990305
WO 1999-DK112 W 19990305

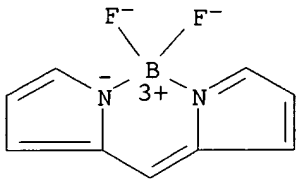
AB A method for screening for a nucleotide sequence encoding for a biol. compd. comprising measuring the fluorescence polarization of a fluorescent substance reacting with the biol. compd. expressed by an expression system comprising the nucleotide sequence. The new and versatile use of fluorescence polarization technol. provides a fast, sensitive and accurate means for screening nucleotide sources for those encoding a biol. compds. suitable for industrial prodn. and application such as an enzyme or a medical drug. Measurements of fluorescence polarization of a fluorescent mol. instead of changes in the emission intensity of the fluorescent mol. provides a large degree of freedom in choosing the type fluorescent mol. The invention encompasses specific fluorescence polarization assay methods suitable for use in screening procedures, such as specific methods for detection of xylanase, pectinase, amylase, transglutaminase, xyloglucan endotransglycosylase, pectin Me esterase, arabinanase, mannanase, rhamnogalacturonase, and cellulase activity comprising measuring changes of fluorescence polarization of fluorescently labeled polysaccharide

derivs. upon hydrolysis by the enzyme. The invention also encompasses new fluorescent substances comprising fluorophore-labeled polysaccharides and a process for producing the fluorescent substance.

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (fluorescence polarization screening method for gene-expressed biol. compds.)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:299538 HCAPLUS
DOCUMENT NUMBER: 130:321570
TITLE: Labeling of polymers via free radical mechanisms and sequencing of nucleic acids
INVENTOR(S): Guillet, James E.; Burke, Nicholas A. D.
PATENT ASSIGNEE(S): Can.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9922020	A2	19990506	WO 1998-CA981	19981022
WO 9922020	A3	19990715		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2305995	AA	19990506	CA 1998-2305995	19981022
AU 9895270	A1	19990517	AU 1998-95270	19981022
EP 1025263	A2	20000809	EP 1998-948653	19981022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001520893	T2	20011106	JP 2000-518110	19981022
US 6383750	B1	20020507	US 2000-530043	20001127

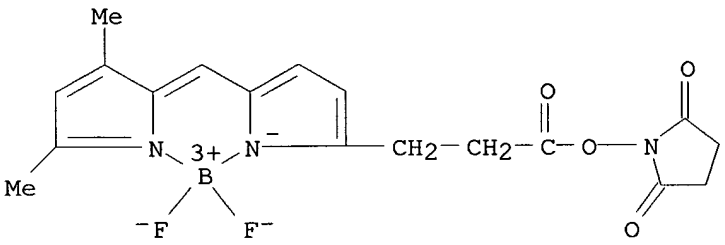
PRIORITY APPLN. INFO.: US 1997-64838P P 19971023
WO 1998-CA981 W 19981022

AB Polymers are randomly labeled with labeling groups such as fluorophores, by a process of creating free radicals on the polymer in the presence of a stable free radical, such as an aminoxyl compd., so that the stable free radical group bonds to the polymer in random fashion. Labeling groups such as fluorophores are attached to the stable free radical groups, before or after they are attached to the polymer. The process allows labeling of polymers having no reactive functional groups, it can also be applied to the labeling of nucleic acids, for use in conjunction with a PCR chain extension sequencing process, to allow the sequencing of target nucleic acids of high mol. wt. Thus, single-stranded DNA is labeled with fluorescamine, fluorescein isothiocyanate, or BODIPY-FL sulfosuccinimidyl ester via a free radical mechanism whereby hydrogen extn. from amino-TEMPO occurs by chem., photochem., or radiochem. means. The no. of labels is proportional to the length of each DNA mol. Unlike conventional sequencing methods, the fluorescence response is nearly independent of the no. of bases in the DNA chain. Furthermore, the fluorescence peaks are relatively sharp and should be resolvable up to 1400 bases, possibly longer if the electrophoretic conditions are optimized. Labeling of other synthetic polymers, such as poly(acrylic acid) or polystyrene, is also described.

IT **146616-66-2**, BODIPY FL, SE
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(BODIPY-FL,SE; labeling of polymers via free radical mechanisms and sequencing of nucleic acids)

RN 146616-66-2 HCAPLUS

CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:150598 HCAPLUS

DOCUMENT NUMBER: 130:306711

TITLE: Structurally related peptide agonist, partial agonist, and antagonist occupy a similar binding pocket within the cholecystokinin receptor. Rapid analysis using fluorescent photoaffinity labeling probes and capillary electrophoresis

AUTHOR(S): Dong, Moaqing; Ding, Xi-Qin; Pinon, Delia I.; Hadac, Elizabeth M.; Oda, Robert P.; Landers, James P.; Miller, Laurence J.

CORPORATE SOURCE: Center for Basic Research in Digestive Diseases, Mayo Clinic, Rochester, MN, 55905, USA

SOURCE: Journal of Biological Chemistry (1999), 274(8),

4778-4785
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

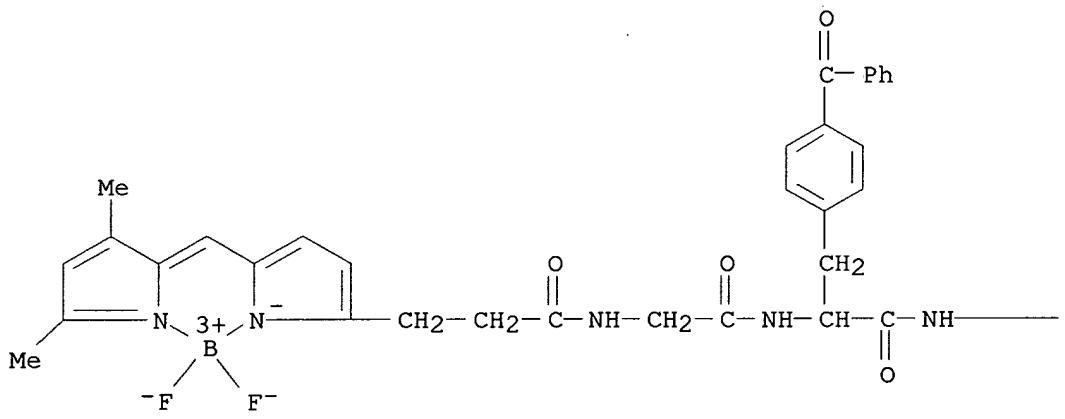
AB The mol. basis of ligand binding to receptors provides important insights for drug development. Here, we explore domains of the cholecystokinin (CCK) receptor that are crit. for ligand binding, using a novel series of fluorescent photolabile probes, receptor proteolysis, and rapid high resoln. sepn. of peptide fragments by capillary electrophoresis. Each probe incorporated the same fluorophore and a photolabile p-benzoylphenylalanine at the amino terminus of the pharmacophoric domain (residue 24 of CCK-33) of CCK analogs representing full agonist, partial agonist, and antagonist of this receptor. Each was used to label the CCK receptor expressed on Chinese hamster ovary-CCKR cells, with the labeled domain then released by cyanogen bromide cleavage. Capillary electrophoresis with laser-induced fluorescence detection achieved an on-capillary mass sensitivity of 1.6 amol (10-18 mol), with an excellent signal-to-noise ratio. Each of the biol. divergent, but structurally similar probes saturably and specifically labeled the same receptor domain, consistent with conservation of "docking" determinants. This had an apparent mass of 2.9 kDa, most consistent with the first extracellular loop domain. An addnl. probe having its site of covalent attachment in a different region of the probe (residue 29 of CCK-33) labeled a distinct receptor fragment with differential migration on capillary electrophoresis (third extracellular loop). Identification of the specific receptor residue(s) covalently linked to the amino-terminal probes must await further fragmentation and sequence anal.

IT **223479-76-3 223479-80-9 223479-81-0 223479-97-8**
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(cholecystokinin receptor structure-activity relation assessment with fluorescent photoaffinity labeling probes and capillary electrophoresis)

RN 223479-76-3 HCAPLUS

CN Borate(3-), [N-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]glycyl-4-benzoyl-L-phenylalanylglycyl-L-.alpha.-aspartyl-O-sulfo-L-tyrosyl-L-norleucylglucyl-L-tryptophyl-L-norleucyl-L-.alpha.-aspartyl-L-phenylalaninamidato(4-)]difluoro-, trihydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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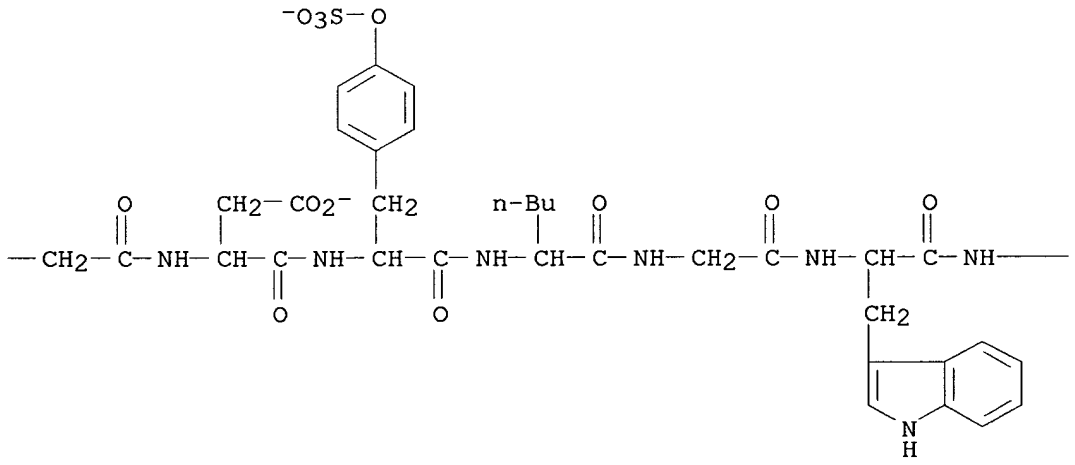

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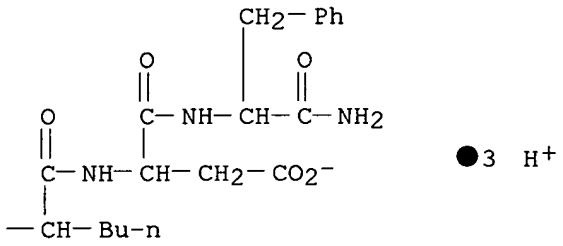
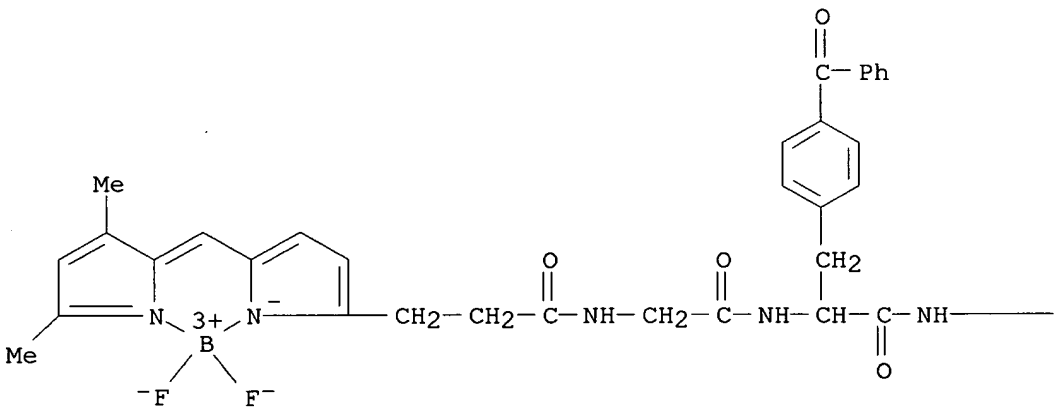


RN 223479-80-9 HCAPLUS
CN Borate(3-), difluoro[1-(2-phenylethyl) N-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]glycyl-4-benzoyl-L-phenylalanylglycyl-L-.alpha.-aspartyl-O-sulfo-L-tyrosyl-L-norleucylglycyl-L-tryptophyl-L-norleucyl-L-.alpha.-aspartato(4-)]-, trihydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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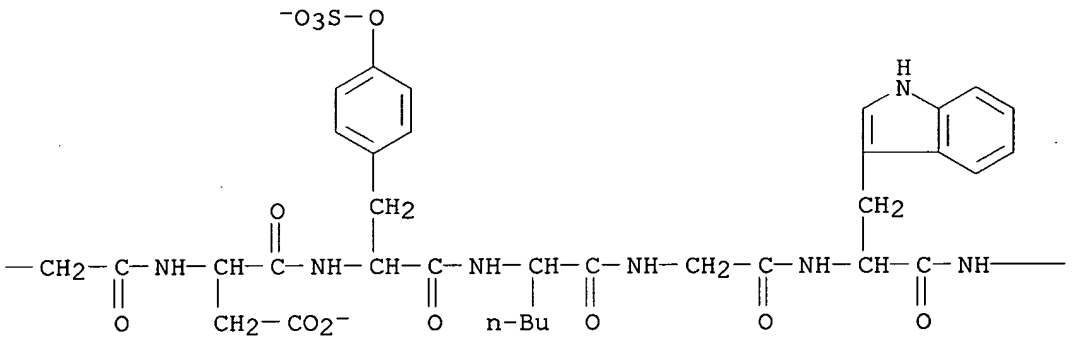
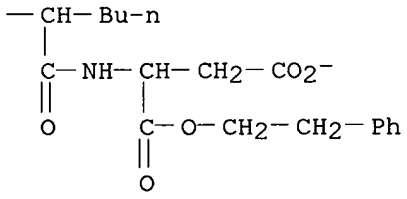
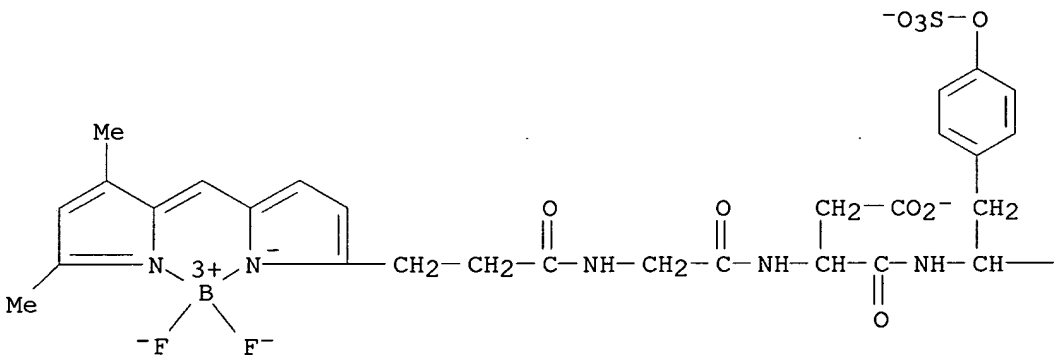


PAGE 1-C



RN 223479-81-0 HCAPLUS
CN Borate(3-), [N-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]glycyl-L-.alpha.-aspartyl-O-sulfo-L-tyrosyl-L-norleucyl-4-benzoyl-L-phenylalanyl-L-tryptophyl-L-norleucyl-L-.alpha.-aspartyl-L-phenylalaninamidato(4-)]difluoro-, trihydrogen, (T-4)-(9CI) (CA INDEX NAME)

PAGE 1-A



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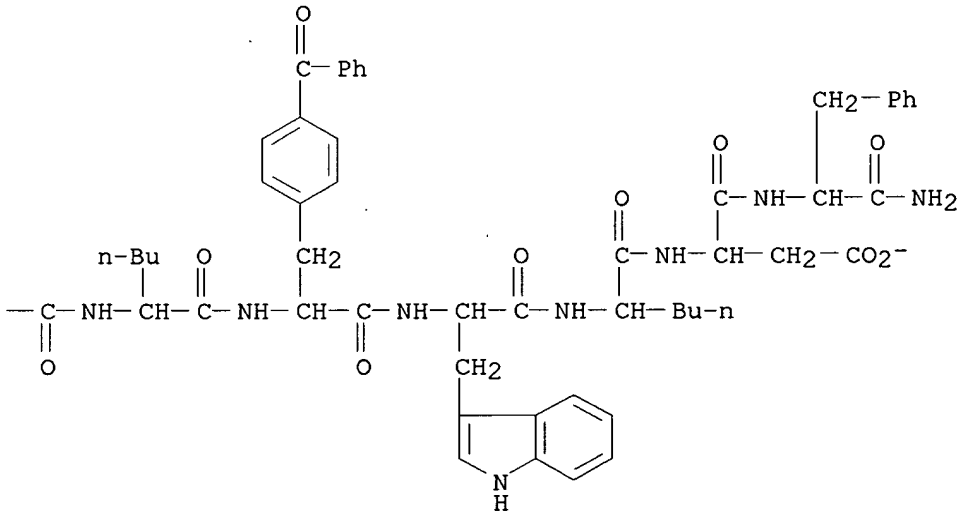


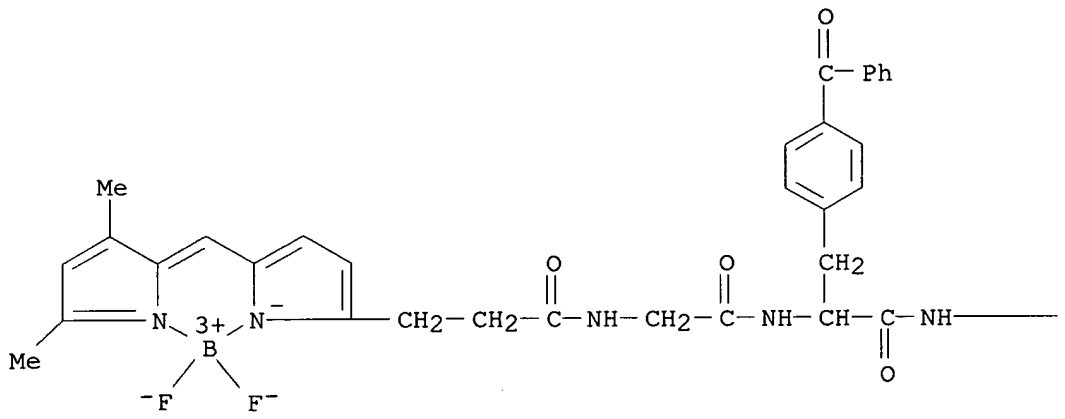
PAGE 2-A

●3 H^+

RN 223479-97-8 HCAPLUS

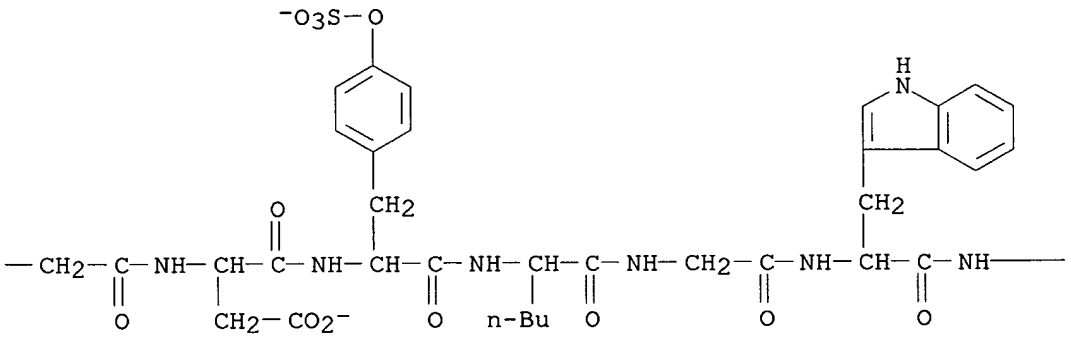
CN Borate(3-), difluoro[1-(2-phenylethyl) N-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]glycyl-4-benzoyl-L-phenylalanylglycyl-L-.alpha.-aspartyl-O-sulfo-L-tyrosyl-L-norleucylglycyl-D-tryptophyl-L-norleucyl-L-.alpha.-aspartato(4-)]-, trihydrogen, (T-4)- (9CI) (CA INDEX NAME)

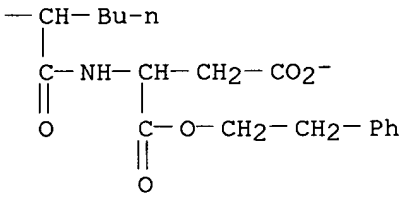
PAGE 1-A



●3 H^+

PAGE 1-B





REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:590694 HCAPLUS
DOCUMENT NUMBER: 129:227494
TITLE: Fluorescence polarization assays and substrates for enzymes
INVENTOR(S): Schade, Sylvia Zottu; Jolley, Michael Ernest
PATENT ASSIGNEE(S): United States Dept. of the Navy, USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

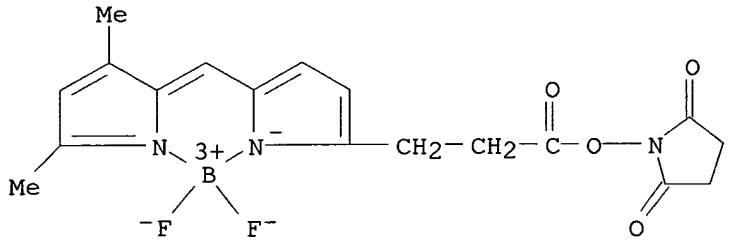
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5804395	A	19980908	US 1995-566390	19951201

PRIORITY APPLN. INFO.: US 1995-566390 19951201

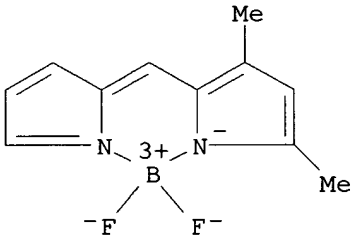
AB Fluorescent-labeled substrates are provided for fluorescence polarization says of enzymes. These substrates are proteins labeled with derivs. of BODIPY, 4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene. The BODIPY fluorescent tag of the present invention is pH independent, and can be used over a pH range of from about 2 to about 11. Thus one can assay, in real time, enzymes with pH maxima at pH below 7 using fluorescence polarization methodol., which could not be done with fluorescein derivs. Different enzymes can be compared using the same BODIPY conjugate by merely changing the buffer system which changes the pH conditions. Fluorescence polarization assays of enzyme activity can be performed in the presence of whole bacteria and other finely suspended particles, such as might be present in tissue homogenates or cellular material. This is particularly useful for chairside assays on dental plaque or clin. assays on bacteria or tissue or exudates.

IT **146616-66-2,** BODIPY FL-C 3SE

RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); ANST (Analytical study); USES (Uses)
(fluorescence polarization assays and substrates for enzymes)
RN 146616-66-2 HCAPLUS
CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IT **154793-49-4DP**, proteins labeled with
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(fluorescence polarization assays and substrates for enzymes)
RN 154793-49-4 HCAPLUS
CN Boron, [3,5-dimethyl-2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:157360 HCAPLUS
DOCUMENT NUMBER: 128:215257
TITLE: Dipyrromethene boron difluoride labeled fluorescent microparticles
INVENTOR(S): Haugland, Richard P.; Haugland, Rosaria P.; Brinkley, John Michael; Kang, Hee Chol; Kuhn, Michael; Wells, K. Sam; Zhang, Yu Zhong
PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
SOURCE: U.S., 17 pp., Cont.-in-part of U.S. Ser. No. 629,466. abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5723218	A	19980303	US 1995-484151	19950607
US 5227487	A	19930713	US 1990-509360	19900416
US 5274113	A	19931228	US 1991-786767	19911101
US 5453517	A	19950926	US 1992-843360	19920225
US 5326692	A	19940705	US 1992-882299	19920513
US 5326692	B1	19960430		
US 5442045	A	19950815	US 1993-28319	19930308
US 5405975	A	19950411	US 1993-38918	19930329
US 5451663	A	19950919	US 1993-45758	19930408
US 5433896	A	19950718	US 1994-246790	19940520
US 5459276	A	19951017	US 1994-246847	19940520
US 5501980	A	19960326	US 1994-247013	19940520
US 5573909	A	19961112	US 1994-247108	19940520
US 5516864	A	19960514	US 1995-375360	19950119
US 5648270	A	19970715	US 1995-384945	19950206
JP 2004002851	A2	20040108	JP 2003-128429	20030506

PRIORITY APPLN. INFO.:

US 1990-509360	A3	19900416
US 1990-629466	B2	19901218
US 1991-786767	A3	19911101
US 1992-843360	A2	19920225
US 1992-882299	A2	19920513
US 1993-28319	A2	19930308
US 1993-38918	A3	19930329
US 1993-45758	A2	19930408
US 1994-246790	A2	19940520
US 1994-246847	A2	19940520
US 1994-247013	A2	19940520
US 1994-247108	A2	19940520
US 1995-375360	A2	19950119
US 1995-384945	A2	19950206
JP 1993-502684	A3	19930507

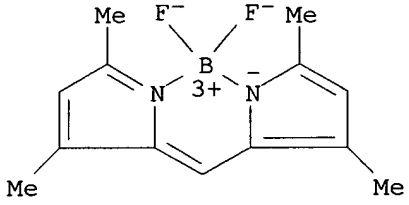
OTHER SOURCE(S): MARPAT 128:215257

AB The invention is a novel fluorescently labeled microparticle, where the microparticle internally incorporates at least one dipyrromethene boron difluoride dye. Appropriate selection of substituents results in dipyrromethene boron difluoride derivs. that, when incorporated into polymer microparticles, give the desired excitation and emission wavelengths. The spectral characteristics of the labeling dyes in liq. are not greatly changed when the dye is incorporated into the particles, and the spectral excitation and emission wavelengths are compatible with commonly used filter sets. Other embodiments of the fluorescent microparticles include addnl. dyes and/or bioreactive substances. Thus, red fluorescent polystyrene microspheres were prepd. by the coupling of a dipyrromethene boron difluoride deriv. with the polymer microspheres. The fluorescent microparticles thus obtained were coupled to avidin to give the reagent which bound to a protein-biotin conjugate.

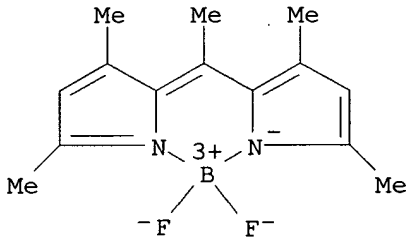
IT **21658-70-8 121207-31-6 126368-67-0**
148185-57-3 152072-93-0 154793-49-4
154793-50-7 204376-56-7 204376-57-8
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical

study); USES (Uses)
(dipyrromethene boron difluoride-labeled fluorescent polymer microparticles in anal.)

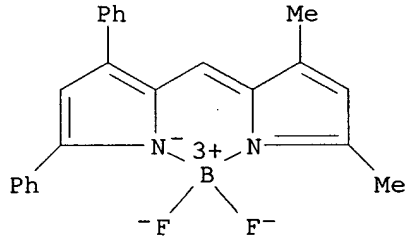
RN 21658-70-8 HCAPLUS
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



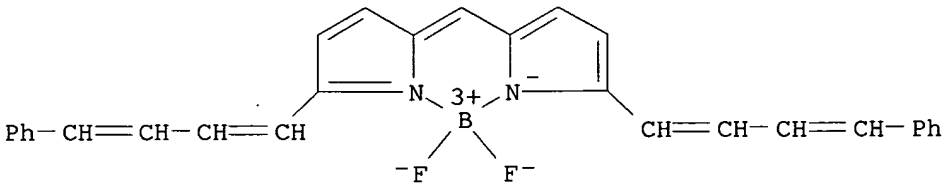
RN 121207-31-6 HCAPLUS
CN Boron, [2-[1-(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)ethyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



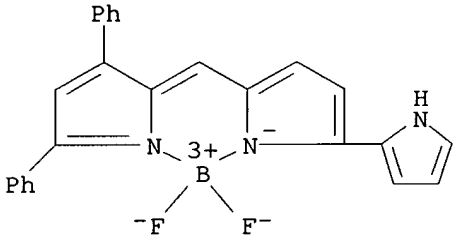
RN 126368-67-0 HCAPLUS
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-diphenyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



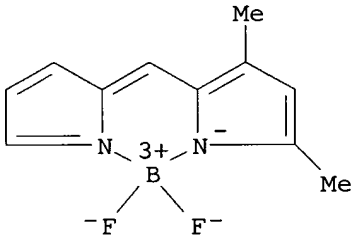
RN 148185-57-3 HCAPLUS
CN Boron, difluoro[2-(4-phenyl-1,3-butadienyl)-5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



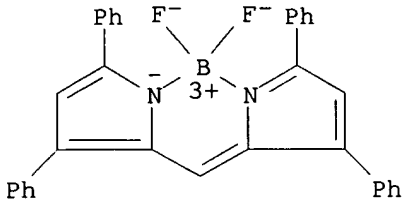
RN 152072-93-0 HCAPLUS
CN Boron, [5-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-2,2'-bi-1H-pyrrolato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 154793-49-4 HCAPLUS
CN Boron, [3,5-dimethyl-2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

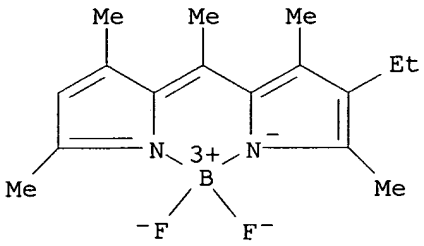


RN 154793-50-7 HCAPLUS
CN Boron, [2-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-diphenyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

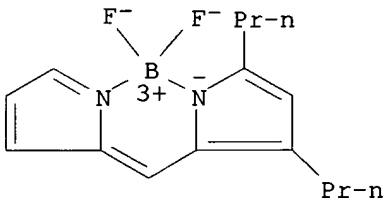


RN 204376-56-7 HCAPLUS
CN Boron, [2-[1-(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)ethyl]-4-ethyl-3,5-

dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 204376-57-8 HCAPLUS
CN Boron, [3,5-dipropyl-2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:146543 HCAPLUS
DOCUMENT NUMBER: 128:190175
TITLE: Dye labeled polymers as reagents for measuring polymer degradation
INVENTOR(S): Haugland, Richard P.; Zhou, Mingjie
PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
SOURCE: U.S., 20 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

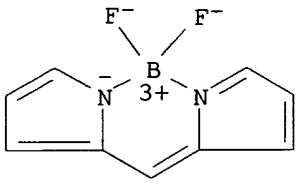
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5719031	A	19980217	US 1996-696544	19960814

PRIORITY APPLN. INFO.: US 1996-696544 19960814

AB This invention relates to polymers labeled with fluorescent dye to the point that significant fluorescence quenching occurs, such that degrdn. of the polymer results in fluorescence enhancement. The resulting fluorescence enhancement is useful for measuring the degrdn. of such polymers, for example as a result of enzymic hydrolysis of a protein, carbohydrate, nucleic acid, or other natural or synthetic polymer.

IT **138026-71-8**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(dye labeled polymers as reagents for measuring polymer degrdn.)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:34059 HCAPLUS
DOCUMENT NUMBER: 126:57117
TITLE: Methods for the production of platinum-based linkers between labels and bio-organic molecules, for labeling bio-organic molecules, for detecting biological substances of interest and diagnostic test kits
INVENTOR(S): Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria; Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna
PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.; Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria; Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635696	A1	19961114	WO 1996-NL198	19960508
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2218815	AA	19961114	CA 1996-2218815	19960508
AU 9657040	A1	19961129	AU 1996-57040	19960508
AU 724320	B2	20000914		
JP 11505533	T2	19990521	JP 1996-533965	19960508
NZ 307633	A	20000128	NZ 1996-307633	19960508
EP 1019420	A1	20000719	EP 1996-915218	19960508
EP 1019420	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

AT 246696	E	20030815	AT 1996-915218	19960508
PT 1019420	T	20031231	PT 1996-96915218	19960508
PRIORITY APPLN. INFO.:			EP 1995-201197 A	19950509
			WO 1996-NL198 W	19960508

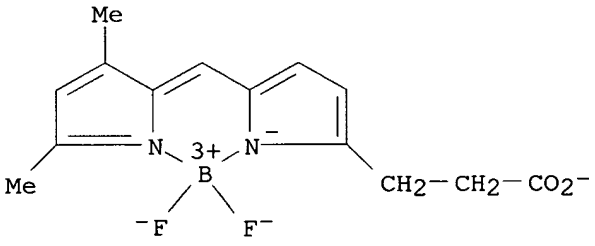
OTHER SOURCE(S): CASREACT 126:57117; MARPAT 126:57117

AB The present invention provides improved methods of producing platinum compds., which are very suitable for producing labeled substances, which can be used to detect specific mols. of interest. The platinum coordination compds. have two reactive groups of which one is replaced by a label and the other one can be replaced by a substance to be labeled. Prodn. of labeled substances is very much improved by selection of the right starting materials and producing the right intermediates. The efficiency of labeling is very much improved, thereby enabling the prodn. of labeling kits which are also a part of the present invention. The methods can be used for the detection of, e.g., various microorganisms and gene translocations/abnormalities.

IT **165599-63-3DP,** complexes with platinum ethylenediamine
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

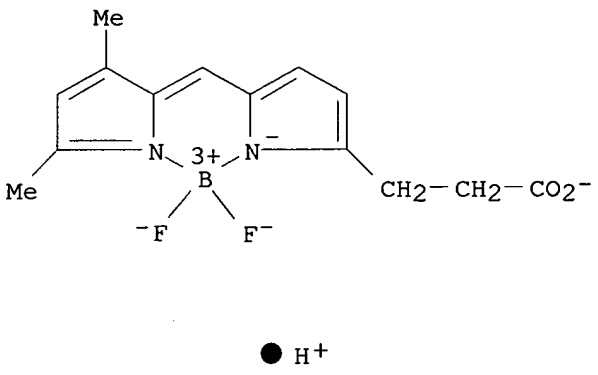


● H^+

IT **165599-63-3,** BODIPY 530/550
RL: RCT (Reactant); RACT (Reactant or reagent)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:702021 HCAPLUS
DOCUMENT NUMBER: 126:16494
TITLE: Fluorescent labeling using microparticles with controllable Stokes shift
INVENTOR(S): Singer, Victoria L.; Haugland, Richard P.
PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
SOURCE: U.S., 26 pp., Cont.-in-part of U.S. 5, 362, 692.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5573909	A	19961112	US 1994-247108	19940520
US 5326692	A	19940705	US 1992-882299	19920513
US 5326692	B1	19960430		
AT 167511	E	19980715	AT 1993-913815	19930507
US 5723218	A	19980303	US 1995-484151	19950607
JP 2004002851	A2	20040108	JP 2003-128429	20030506

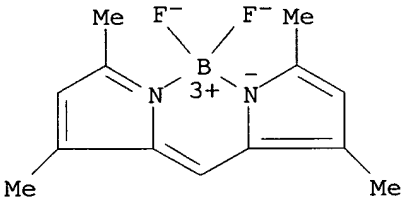
PRIORITY APPLN. INFO.:
US 1992-882299 A2 19920513
US 1990-509360 A3 19900416
US 1990-629466 B2 19901218
US 1991-786767 A3 19911101
US 1992-843360 A2 19920225
US 1993-28319 A2 19930308
US 1993-38918 A3 19930329
US 1993-45758 A2 19930408
JP 1993-502684 A3 19930507
US 1994-246790 A2 19940520
US 1994-246847 A2 19940520
US 1994-247013 A2 19940520
US 1994-247108 A2 19940520
US 1995-375360 A2 19950119
US 1995-384945 A2 19950206

OTHER SOURCE(S): MARPAT 126:16494
AB The invention relates to methods for labeling or detecting .gtoreq.1 target materials using surface-coated fluorescent microparticles with unique characteristics. The unique microparticles used to practice the

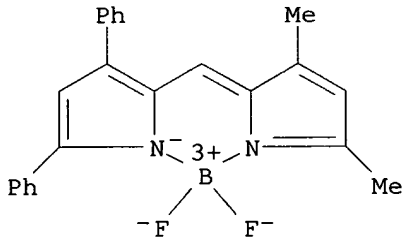
invention have .gtoreq.2 components: an external substance or coating that is selective for each target material and an internal mixt. of multiple fluorescent dyes. The mixt. of dyes is a series of .gtoreq.2 fluorescent dyes having overlapping excitation and emission spectra allowing efficient energy transfer from the excitation wavelength of the first dye in the series, transfer through the dyes in the series and re-emission as an optical signal at the emission wavelength of last dye in the series, resulting in a desired effective Stokes shift for the microparticle that is controlled through selection of appropriate dyes. The unique microparticles are combined with a sample thought to contain the target material(s) so that the microparticles label the target materials. The sample is then optionally illuminated, resulting in fluorescence of the microparticles that is used to detect .gtoreq.1 target materials. Examples are given of the detection of DNA, mRNA, cell surface receptors, centromeres on human chromosomes, cytochrome oxidase, nuclear antigens, etc.

IT **21658-70-8P 126368-67-0P 152072-93-0P 154793-49-4P 154793-50-7P 183991-74-4P**
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(fluorescent labeling using microparticles with controllable Stokes shift)

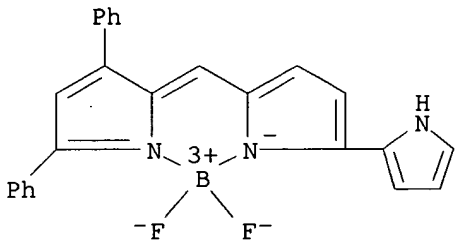
RN 21658-70-8 HCAPLUS
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



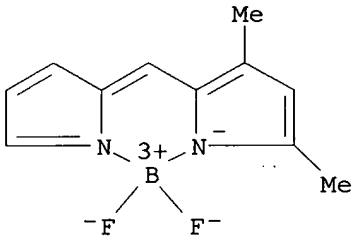
RN 126368-67-0 HCAPLUS
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-diphenyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



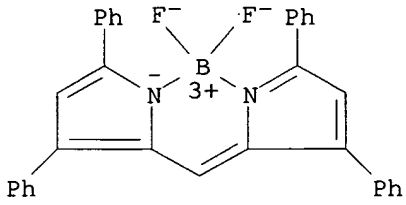
RN 152072-93-0 HCAPLUS
CN Boron, [5-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-2,2'-bi-1H-pyrrolato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



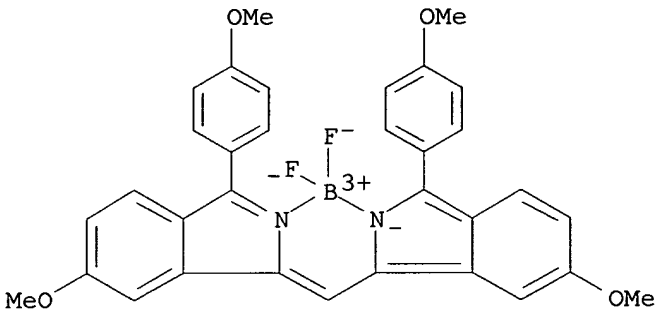
RN 154793-49-4 HCAPLUS
CN Boron, [3,5-dimethyl-2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 154793-50-7 HCAPLUS
CN Boron, [2-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-diphenyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 183991-74-4 HCAPLUS
CN Boron, difluoro[6-methoxy-1-[[6-methoxy-3-(4-methoxyphenyl)-2H-isoindol-1-yl-.kappa.N]methylene]-3-(4-methoxyphenyl)-1H-isoindolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L7 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:323936 HCAPLUS
DOCUMENT NUMBER: 125:81261
TITLE: Single-step signal group-imidazole labeling of organic phosphate groups under aqueous conditions
INVENTOR(S): Giese, Roger W.; Wang, Poguang
PATENT ASSIGNEE(S): Northeastern University, USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

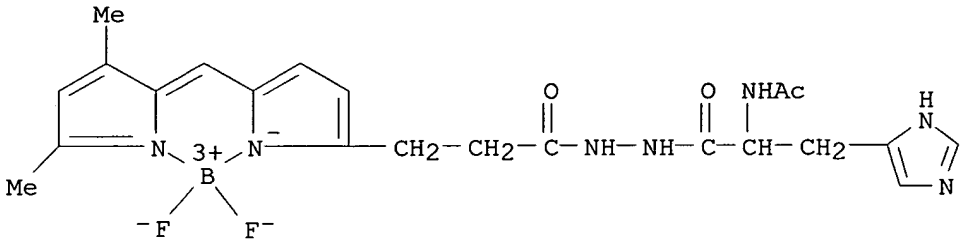
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5512486	A	19960430	US 1993-60569	19930510

PRIORITY APPLN. INFO.: US 1993-60569 19930510
OTHER SOURCE(S): MARPAT 125:81261

AB Compds. and methods for single-step, covalent labeling of the phosphate group of an org. substance under aq. conditions are described. The labeling compd. includes any kind of detectable signal group covalently bound to an imidazole moiety, which can be imidazole or a substituted imidazole. A preferred labeling compd. has the formula I.

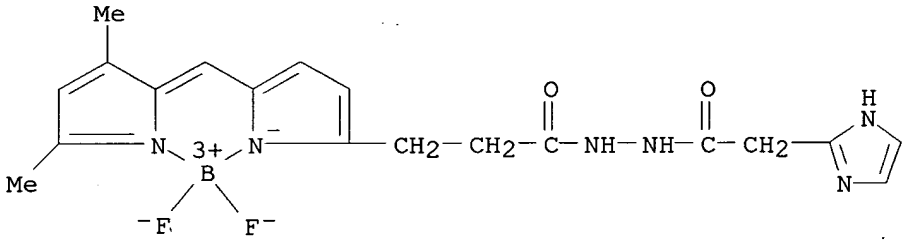
IT **151923-75-0P**
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(1-step signal group-imidazole labeling of org. phosphate groups under aq. conditions)

RN 151923-75-0 HCAPLUS
CN Boron, [N-acetyl-L-histidine 2-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]hydrazidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

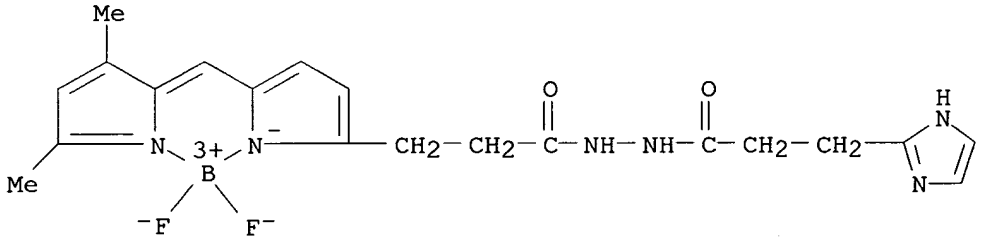


IT **178388-72-2P 178388-73-3P 178388-76-6P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(1-step signal group-imidazole labeling of org. phosphate groups under aq. conditions)

RN 178388-72-2 HCAPLUS
CN Boron, difluoro[1H-imidazole-2-acetic acid 2-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrol-2-yl]-1-oxopropyl]hydrazidato]-, (T-4)- (9CI) (CA INDEX NAME)

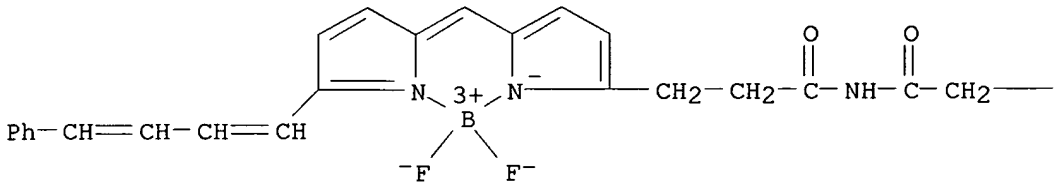


RN 178388-73-3 HCAPLUS
CN Boron, difluoro[1H-imidazole-2-propanoic acid 2-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrol-2-yl]-1-oxopropyl]hydrazidato]-, (T-4)- (9CI) (CA INDEX NAME)

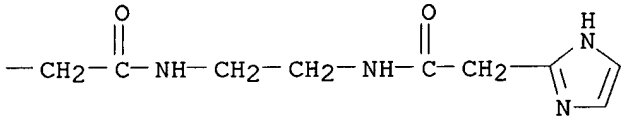


RN 178388-76-6 HCAPLUS
CN Boron, difluoro[N-[2-[(1H-imidazol-2-ylacetyl)amino]ethyl]-N'-[1-oxo-3-[5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene]methyl]-1H-pyrrol-2-yl]propyl]butanediamidato]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



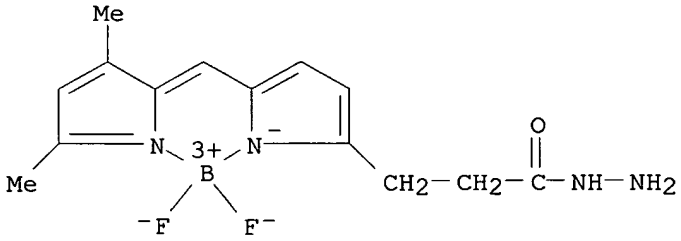
PAGE 1-B



IT **178388-71-1 178458-24-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(1-step signal group-imidazole labeling of org. phosphate groups under aq. conditions)

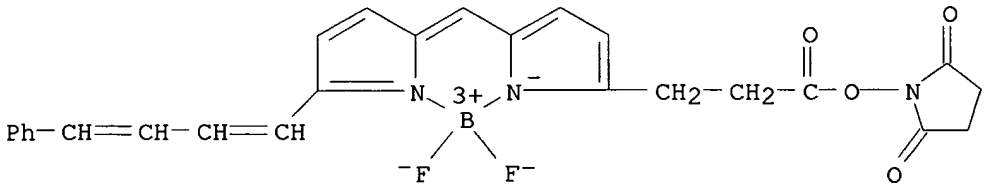
RN 178388-71-1 HCAPLUS

CN Boron, [[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoic acid-.kappa.N] hydrazidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 178458-24-7 HCAPLUS

CN Boron, difluoro[1-[1-oxo-3-[5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propoxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



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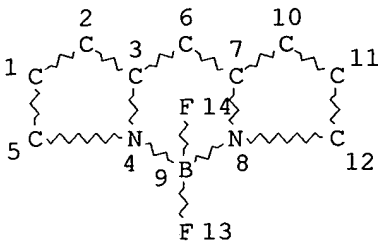
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L3 1269 SEA FILE=REGISTRY SSS FUL L1
L19 188 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 AND (AMINO ACIDS?/CT OR PEPTIDES?/CT OR PROTEINS?/CT)
L20 15179 SEA FILE=HCAPLUS ABB=ON PLU=ON GEL ELECTROPHORESIS+OLD,NT/CT

L21 58496 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYAMIDE FIBERS+OLD,NT/CT
L22 167495 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYAMIDES+OLD,NT/CT
L23 13236 SEA FILE=HCAPLUS ABB=ON PLU=ON "POLY(VINYLIDENE FLUORIDE)"/CT

L25 39 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND ((L20 OR L21 OR L22 OR L23) OR GEL ELECTROPHORESIS OR NYLON OR PVDF OR POLYVINYLIDENE DIFLUORIDE OR GLASS OR PLASTIC OR APTAMER)
L26 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L3(L)(SPECIFIC BINDING PAIR OR LIGAND OR ANTIBOD? OR ANTIGEN OR BIOTIN OR AVIDIN OR NEUTRAVIDIN OR STREPTAVIDIN OR LECTIN)
L27 79 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 OR L26

=> d l27 ibib ab hitind hitstr 1-79

L27 ANSWER 1 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:101264 HCAPLUS
TITLE: Methods for high throughput screening and characterization of nucleic acid binding proteins
INVENTOR(S): Loewy, Zvi; Chaung, Wayne; Pottathil, Raveendran
PATENT ASSIGNEE(S): Alfa Wasserman, Inc., USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2004011606	A2	20040205	WO 2003-US23329	20030725	

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-398685P P 20020726

AB The present invention relates to a novel method for the detection and characterization of an unknown nucleic acid-binding protein from a biol. sample using DNA glycosylase or AP lyase in macromol. protection assay. Screening of samples may be performed in microtiter plates.

IC ICM C12N

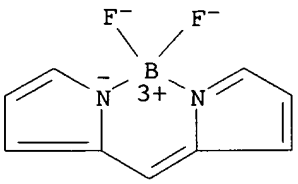
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 6

IT 58-85-5, biotin 2321-07-5D, Fluorescein, derivs. 9013-20-1, Streptavidin 13558-31-1D, derivs. 14596-37-3, P-32 15117-53-0, S-35 15749-66-3, P-33 70281-37-7, Tetramethylrhodamine 82354-19-6, Texas Red **138026-71-8**, Bodipy 215868-31-8, Pacific blue
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for detection of nucleic acid binding protein-**antibody** complexes; methods for high throughput screening and characterization of nucleic acid binding proteins)

IT **138026-71-8**, Bodipy
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(for detection of nucleic acid binding protein-**antibody** complexes; methods for high throughput screening and characterization of nucleic acid binding proteins)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 2 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:971590 HCAPLUS

DOCUMENT NUMBER: 140:37024

TITLE: Modified fluorophore covalently linked to oligonucleotides functions as fluorescent tracer molecule used in fluorescence resonance energy

transfer studies
INVENTOR(S): Trinquet, Eric; Maurin, Fabrice; Bazin, Herve; Mathis, Gerard
PATENT ASSIGNEE(S): Cis Bio International, Fr.
SOURCE: Fr. Demande, 52 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

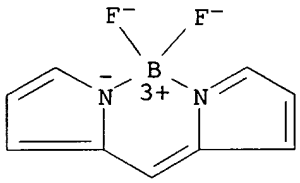
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2840611	A1	20031212	FR 2002-6948	20020606

PRIORITY APPLN. INFO.: FR 2002-6948 20020606
OTHER SOURCE(S): MARPAT 140:37024

AB This invention presents a fluorescent tracer mol. comprised of a fluorophore, covalently linked to an oligonucleotide and contg. a functional group capable of linking to a carrier mol. The fluorophore is from a category including rhodamines, cyanines, squaraines, bodipys and fluoresceins, however, excludes rare earth cryptate. While, carrier mols. described are primarily antibodies or streptavidin, they may also comprise of nucleic acids, proteins, hormones, pharmaceuticals, biotin, avidin, polymers or **glass**. Chem. synthesis and fluorescence resonance energy transfer anal. of the tracer mol. are provided. The tracer mol. can be used for detection of a macromol. or biol. activity, therein, or for drug screening.

IC ICM C07H021-00
ICS C07D311-80; C07D471-22; C07F005-02; A61K049-06; A61K049-08; A61K049-16; G01N033-533; C07D311-00; C07D211-70; C07D211-82
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9, 73
IT Agglutinins and Lectins
Antigens
Avidins
Carbohydrates, biological studies
Glass, biological studies
Haptens
Hormones, animal, biological studies
Nucleic acids
Polymers, biological studies
Proteins
Toxins
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(carrier mol. of; modified fluorophore covalently linked to oligonucleotides functions as fluorescent tracer mol. used in fluorescence resonance energy transfer studies)
IT 58-85-5, Biotin 2321-07-5, Fluorescein 13558-31-1 50812-37-8, Glutathione S-transferase 78675-98-6, Squaraine **138026-71-8**, Bodipy
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(modified fluorophore covalently linked to oligonucleotides functions as fluorescent tracer mol. used in fluorescence resonance energy transfer studies)

IT **138026-71-8**, Bodipy
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(modified fluorophore covalently linked to oligonucleotides functions as fluorescent tracer mol. used in fluorescence resonance energy transfer studies)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 3 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:951208 HCAPLUS
DOCUMENT NUMBER: 140:14376
TITLE: Common ligand universal enzyme and applications in screening of NAD-binding receptors ligands and detection of NAD-binding receptors
INVENTOR(S): Qin, Yong; Yu, Lin; Hansen, Mark R.; Sergienko, Eduard; Bertolaet, Bonnie; Sem, Daniel S.
PATENT ASSIGNEE(S): Triad Therapeutics, Inc., USA
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003100078	A2	20031204	WO 2003-US16053	20030523
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003228621	A1	20031211	US 2002-189327	20020702

PRIORITY APPLN. INFO.: US 2002-383448P P 20020524
US 2002-189327 A 20020702
OTHER SOURCE(S): MARPAT 140:14376

AB The present invention relates generally to drug discovery and more specifically to reporter mols. and ligand binding assays. The present invention provides compns. contg. a common ligand linked to a detectable moiety and provides methods for the prepn. of such compns. The present invention also provides methods for screening candidate ligands for binding to a NAD binding receptor, which include contacting a receptor with a candidate ligand and a compn. of the invention followed by evaluation of receptor binding. The screening method of the present invention has broad applicability and can be used to screen large nos. of a wide variety of ligands. The present invention further provides methods for detecting the binding activity of a putative receptor, which include combining the putative receptor with a compn. of the invention and evaluating the level of detectable moiety. The invention also provides kits useful for detection of receptors having NAD binding activity and for screening of candidate ligands that bind to a NAD binding receptor.

IC ICM C12Q

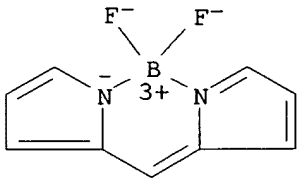
CC 7-1 (Enzymes)
Section cross-reference(s): 1, 9

IT 58-85-5, Biotin 1325-87-7, Cascade Blue 1325-87-7D, Cascade Blue, derivs. 2321-07-5, Fluorescein 2321-07-5D, Fluorescein, derivs. 3520-42-1 9013-20-1, Streptavidin 13558-31-1 13558-31-1D, derivs. 16423-68-0, Erythrosin 17372-87-1, Eosin 70281-37-7, Tetramethylrhodamine 82354-19-6, Texas red 82446-52-4, Lucifer yellow 82446-52-4D, Lucifer yellow, derivs. **138026-71-8**, BODIPY **138026-71-8D**, BODIPY, derivs. 178623-12-6, Rhodamine Red X 189200-71-3, Rhodamine green
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(common **ligand** universal enzyme and applications in screening of NAD-binding receptors **ligands** and detection of NAD-binding receptors)

IT **138026-71-8**, BODIPY **138026-71-8D**, BODIPY, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(common **ligand** universal enzyme and applications in screening of NAD-binding receptors **ligands** and detection of NAD-binding receptors)

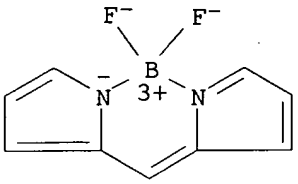
RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 4 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:836777 HCAPLUS
DOCUMENT NUMBER: 139:302013
TITLE: Quantitative assay of the angiogenic and antiangiogenic activity of a test molecule
INVENTOR(S): Libutti, Steven K.; Kayton, Mark L.
PATENT ASSIGNEE(S): Government of the United States of America, Represented by the Secretary Department of Health and Human Service, USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086299	A2	20031023	WO 2003-US10932	20030409

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-371010P P 20020409

AB A method of measuring the angiogenic or antiangiogenic activity of a test mol. comprising (i) utilizing a modified CAM assay to assign an FVD value for a test region of interest and comparing this value to an FVD value for a control region of interest, or (ii) utilizing a modified CAM assay to det. the spectrophotometric absorbance value of a test region of interest and comparing this value to the spectrophotometric absorbance value of a control region of interest, wherein a lower value of the test region of interest as compared to the of the control region of interest is indicative of the test mol. being useful as an inhibitor of angiogenesis, and wherein a higher value of the test region of interest as compared to the value of the control region of interest is indicative of the test mol. being useful as a stimulator of angiogenesis.

IC ICM A61K
CC 1-1 (Pharmacology)
Section cross-reference(s): 2
IT **Proteins**

RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(green fluorescent; quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT **Glass**, biological studies
RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT **Plastics**, biological studies
RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT **Polyamide fibers, biological studies**
RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT **Polyamides, biological studies**
RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT **Peptides, biological studies**
Proteins
RL: PAC (Pharmacological activity); BIOL (Biological study)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

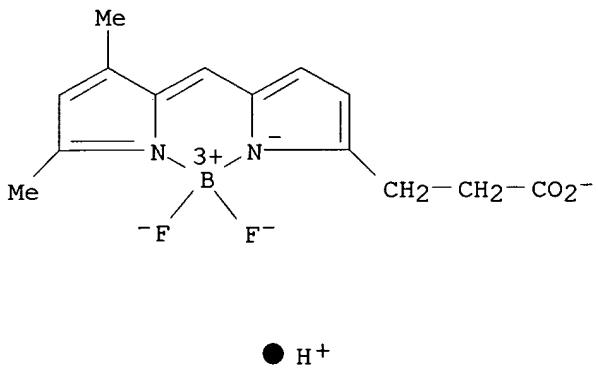
IT **Proteins**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(yellow fluorescent; quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT 81-88-9 523-42-2D, Cyanine, derivs. 532-27-4, Cn 2321-07-5, Fluorescein 17372-87-1, Eosin 25535-16-4, Propidium iodide 82354-19-6, Texas Red 82446-52-4, Lucifer yellow 88235-25-0, C6-NBD 144377-05-9, Cy 5 146368-16-3, Cy3 **165599-63-3**, BODIPY-FL 216982-34-2, DiO
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

IT **165599-63-3**, BODIPY-FL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(quant. assay of the angiogenic and antiangiogenic activity of a test mol.)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 5 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:818051 HCAPLUS
DOCUMENT NUMBER: 139:304135
TITLE: Wortmannin derivatives as probes of cellular proteins and processes
INVENTOR(S): Wandless, Thomas J.; Cimprich, Karlene; Chu, Gilbert; Stohlmeyer, Michelle; Fas, Cornelia
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 36 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003194749	A1	20031016	US 2003-368248	20030218

PRIORITY APPLN. INFO.: US 2002-357538P P 20020215
OTHER SOURCE(S): MARPAT 139:304135

AB One aspect of the present invention relates to methods and reagents for profiling cells and/or subcellular environments (e.g., membrane or nuclear cellular fractions). The invention uses small mol. probes that bind covalently to protein targets, which significantly simplifies purifn. and identification of proteins using full length or proteolyzed proteins. Proteins, cellular components or other binding partners (collectively known as "LBP" or "lipid binding partner") can be naturally occurring, such as proteins or fragments of proteins cloned or otherwise derived from cells, or can be artificial, e.g., polypeptides which are selected from random or semi-random polypeptide libraries. A biotinylated wortmannin deriv. contg. a PEG linker and streptavidin beads were used in assays to pull down ATM, ATR, and DNA-PK kinases from nuclear exts.

IC ICM G01N033-53
ICS C12N009-12; A61K031-366; A61K031-353; A61K031-7048; A61K031-553; A61K031-4025
NCL 435007100; 514456000; 514453000; 514027000; 435194000; 514422000; 514211080
CC 9-2 (Biochemical Methods)
Section cross-reference(s): 1, 6, 7
IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);

RCT (Reactant); ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(GST-Rad 17, ATR kinase substrate; wortmannin derivs. as probes of cellular proteins and processes)

IT **Gel electrophoresis**
(SDS-PAGE, in profiling wortmannin-binding agents; wortmannin derivs. as probes of cellular proteins and processes)

IT **Proteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(wortmannin derivs. as probes of cellular proteins and processes)

IT 108-30-5, Succinic anhydride, reactions 51819-63-7 **165599-63-3**, Bodipy-FL
RL: RCT (Reactant); RACT (Reactant or reagent)
(wortmannin derivs. as probes of cellular proteins and processes)

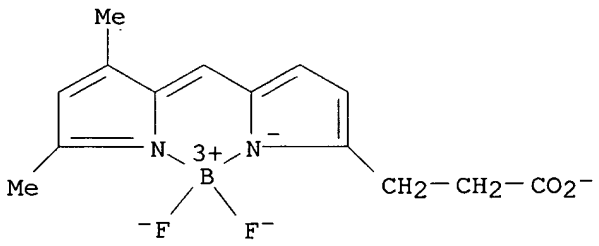
IT **146616-66-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(wortmannin derivs. as probes of cellular proteins and processes)

IT **611212-36-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(wortmannin derivs. as probes of cellular proteins and processes)

IT **165599-63-3**, Bodipy-FL
RL: RCT (Reactant); RACT (Reactant or reagent)
(wortmannin derivs. as probes of cellular proteins and processes)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

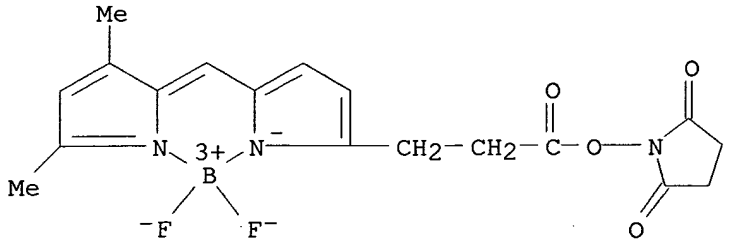


● H^+

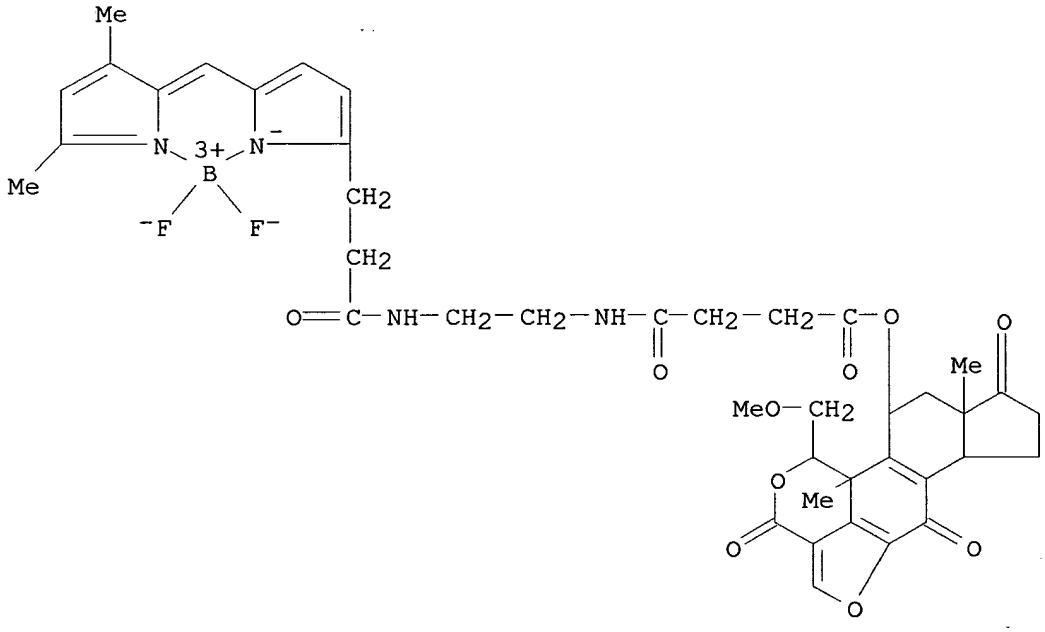
IT **146616-66-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(wortmannin derivs. as probes of cellular proteins and processes)

RN 146616-66-2 HCAPLUS

CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IT **611212-36-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(wortmannin derivs. as probes of cellular proteins and processes)
RN 611212-36-3 HCAPLUS
CN Boron, [(1S,6bR,9aS,11R,11bR)-1,6,6b,7,8,9,9a,10,11,11b-decahydro-1-(methoxymethyl)-9a,11b-dimethyl-3,6,9-trioxo-3H-furo[4,3,2-de]indeno[4,5-h]-2-benzopyran-11-yl 4-[[2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]ethyl]amino]-4-oxobutanoato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 6 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:761010 HCAPLUS
DOCUMENT NUMBER: 139:390339
TITLE: Microchip-based capillary electrochromatography using packed beds
AUTHOR(S): Jemere, Abebaw B.; Oleschuk, Richard D.; Harrison, D. Jed
CORPORATE SOURCE: Department of Chemistry, University of Alberta, Edmonton, AB, Can.
SOURCE: Electrophoresis (2003), 24(17), 3018-3025

CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Integration of a packed column onto a microchip for performance of capillary electrochromatog. (CEC) is described. The quartz device incorporated a cross-injector, and a double weir trapping design for formation of 1, 2 and 5 mm long CEC columns. Three fluorescent dyes were baseline-resolved with plate nos. of 330 (330,000 plates/m; height equiv. to a theor. plate, H = 3.0 .mu.m) for BODIPY 493/503, 360 (360,000 plates/m; H = 2.8 .mu.m) for rhodamine 123 and 244 (244,000 plates/m; H = 4.1 .mu.m) for acridine orange (AO) with 500 V applied on a 1 mm long column. The 2 mm column yielded .apprx.1.8 times more theor. plates than did the 1 mm column, when operated at the same flow rate. Van Deemter plots were obtained for the three column lengths, showing increased plate height for the 5 mm length. A 2 mm column gave peak height and area relative std. deviation values of 2.5 and 3.3%, resp., as avs. for the three dyes (n = 15). The relative std. deviation for the dye retention times was 1% (n = 6) over one day, and 3% (n = 30) over five days. Indirect fluorescence detection of thiourea and of amino acids was possible using a neutral indicator dye (BODIPY 493/503), with a detection limit of 10 .mu.M for amino acids.

CC 80-4 (Organic Analytical Chemistry)

IT **Amino acids, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(analytes; microchip-based capillary electrochromatog. using packed beds)

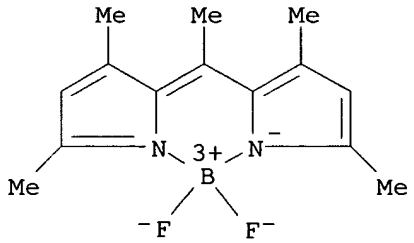
IT **Glass** substrates
(quartz plate; microchip-based capillary electrochromatog. using packed beds)

IT 61-90-5, Leu, analysis 65-61-2, Acridine orange 74-79-3, L-Arginine, analysis 62669-70-9, Rhodamine 123 **121207-31-6**, BODIPY 493/503
RL: ANT (Analyte); ANST (Analytical study)
(analyte; microchip-based capillary electrochromatog. using packed beds)

IT **121207-31-6**, BODIPY 493/503
RL: ANT (Analyte); ANST (Analytical study)
(analyte; microchip-based capillary electrochromatog. using packed beds)

RN 121207-31-6 HCAPLUS

CN Boron, [2-[1-(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)ethyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 7 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:734271 HCAPLUS
DOCUMENT NUMBER: 140:86684
TITLE: Integrated size exclusion and reversed-phase electrochromatography
AUTHOR(S): Jemere, Abebaw B.; Oleschuk, Richard D.; Harrison, D. J.
CORPORATE SOURCE: Dept. of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SOURCE: Micro Total Analysis Systems 2002, Proceedings of the .mu.TAS 2002 Symposium, 6th, Nara, Japan, Nov. 3-7, 2002 (2002), Volume 1, 16-18. Editor(s): Baba, Yoshinobu; Shoji, Shuichi; Van den Berg, Albert. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 69EMKZ; ISBN: 1-4020-1011-7
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Microchip columns of various length (1-5 mm), fabricated on **glass** and quartz substrates, were packed with 5 .mu.m size exclusion and 1.5 .mu.m reversed phase beads. In size exclusion electrochromatog., proteins were sepd. with efficiencies exceeding 70,000 plates/m. Reversed-phase electrochromatog. sepn. of a mixt. of neutral and charged dyes gave efficiencies >300,000 plates/m.

CC 80-4 (Organic Analytical Chemistry)
Section cross-reference(s): 9, 34, 41

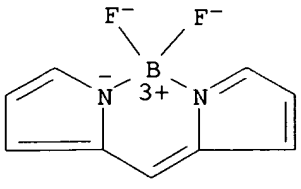
IT **Amino acids, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(indirect detn. of unlabeled amino acids by capillary electrochromatog. using microchip columns)

IT **Proteins**
RL: ANT (Analyte); ANST (Analytical study)
(proteins detn. by size-exclusion electrochromatog. using microchip columns)

IT 65-61-2, Acridine orange 62669-70-9, Rhodamine 123 **138026-71-8**, BODIPY
RL: ANT (Analyte); ANST (Analytical study)
(neutral and charged dyes detn. in mixts. by capillary electrochromatog. using microchip columns)

IT **138026-71-8**, BODIPY
RL: ANT (Analyte); ANST (Analytical study)
(neutral and charged dyes detn. in mixts. by capillary electrochromatog. using microchip columns)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 8 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:696392 HCAPLUS
DOCUMENT NUMBER: 139:226845
TITLE: Method for identifying biological binding molecules and apparatus for carrying out the method
INVENTOR(S): Ng, Jocelyn; Jay, Daniel G.; Ge, Liming; Llag, Leodevico L.
PATENT ASSIGNEE(S): Germany
SOURCE: U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S. Ser. No. 444,959, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003165842	A1	20030904	US 2001-908100	20010718
DE 19854195	A1	20000629	DE 1998-19854195	19981124
DE 19854195	C2	20010201		
AU 9961966	A1	20000613	AU 1999-61966	19990924
AU 761573	B2	20030605		
EP 1149280	A1	20011031	EP 1999-948861	19990924
EP 1149280	B1	20021030		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002530670	T2	20020917	JP 2000-584281	19990924
AT 227021	E	20021115	AT 1999-948861	19990924

PRIORITY APPLN. INFO.: DE 1998-19854195 A 19981124
US 1999-444959 B2 19991122
WO 1999-EP7126 W 19990924

AB The invention relates to a method for identifying the function of a ligand L using chromophore-assisted laser inactivation (CALI), characterized by the stages: (a) selecting a ligand binding partner (LBP) with specificity for the ligand L, (b) coupling the LBP to a laser-activatable marker (tag) to form LBP-tag, where appropriate after previous modification of the LBP with the aim of more efficient binding to the marker, (c) bringing the ligand L into contact with at least one LBP-tag to form an L/LBP-tag complex, and (d) irradiating the L/LBP-tag complex with a laser beam, whereupon the irradiated LBP-tag selectively modifies the bound ligand, it being possible to interchange the sequence of stages (b) and (c). The invention also relates to an app. for carrying out the method according to the invention.

IC ICM C12Q001-68
NCL 435006000
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1, 14, 63
IT Apparatus
Aptamers
Biochemical molecules
Biological transport
Cell
Chromophores

Combinatorial library
Computers
Crosslinking
Databases
Disease, animal
Drug screening
Drugs
Fusion, biological
Genetic engineering
Laser radiation
Lasers
Molecules
Phage display
Radiation
Solutions
(method for identifying biol. binding mols. and app. for carrying out the method)

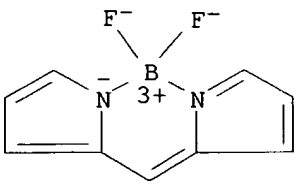
IT **Proteins**
RL: ANT (Analyte); ANST (Analytical study)
(method for identifying biol. binding mols. and app. for carrying out the method)

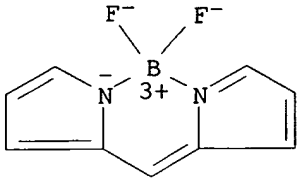
IT **Peptides, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for identifying biol. binding mols. and app. for carrying out the method)

IT 129-00-0, Pyrene, reactions 569-64-2, Malachite green 989-38-8, Rhodamine 6G 2321-07-5, Fluorescein 2768-89-0, Rhodamine X 3520-42-1, Lissamine rhodamine B 9031-11-2, .beta.-Galactosidase 16322-19-3D, NBD, derivs. 16423-68-0, Erythrosin 17372-87-1, Eosin 43070-85-5, Hydroxycoumarin 61419-02-1, Naphthofluorescein 68238-36-8, Isosulfan Blue 70281-37-7, Tetramethylrhodamine 82354-19-6, Texas Red 96753-33-2 99752-92-8, Rhodamine Red 106562-32-7, 7-Amino-4-methylcoumarin-3-acetic acid 107347-53-5, Tetramethylrhodamine isothiocyanate 112117-57-4 113721-87-2 **138026-71-8**, BODIPy 146397-17-3, Cyanine 3.18 151820-47-2, DM-NERF 183185-51-5, Rhodol Green 189200-71-3, Rhodamine Green 195136-58-4, Oregon Green 488 211738-07-7, Cl-NERF 272118-31-7 272444-12-9, Eosine F 3S 590403-05-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for identifying biol. binding mols. and app. for carrying out the method)

IT **138026-71-8**, BODIPy
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for identifying biol. binding mols. and app. for carrying out the method)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)





L27 ANSWER 9 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:633342 HCAPLUS
DOCUMENT NUMBER: 139:174804
TITLE: Methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection molecules
INVENTOR(S): Yang, Qinghong
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003154033	A1	20030814	US 2002-71299	20020207
WO 2003066827	A2	20030814	WO 2003-US3679	20030207

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-71299 A1 20020207

AB The present invention relates to nucleic acid hybridization, Holliday junction formation and branch migration. The present invention provides methods for detecting the presence or absence of a difference, such as deletion, insertion or base substitution, between two related nucleic acid sequences. The methods achieve sensitivities great enough to detect the presence of any difference between the nucleic acids, even single nucleotide polymorphisms (SNPs). In the methods, a target nucleic acid and a ref. nucleic acid are contacted under conditions in which they are capable of forming a four-way Holliday-like nucleic acid complex with a branch structure that is capable of migration. Under the contact conditions, if the ref. nucleic acid and target nucleic acid are identical, branch migration is capable of going to completion resulting in complete strand exchange. If the ref. nucleic acid and target nucleic acid are different, branch migration does not go to completion, resulting in a stable Holliday junction. The presence of the stable Holliday junction can be detected with mols. that specifically bind such complexes, by **gel electrophoresis** or by specific isolation of the

stable Holliday junction. The mols. that specifically bind to the Holliday junction include RuvA, RuvC, RuvB, RusA, Cce1 and spCce1. Practical applications of the invention include, but are not limited to, genotyping, discovery and detection of SNPs, characterization and quantitation of polynucleotides, mutation rate detection, gene expression anal. Furthermore, the method of invention is capable of distinguishing between homozygous and heterozygous genetic variation.

IC ICM C12Q001-68
ICS G06F019-00; G01N033-48; G01N033-50

NCL 702020000; 435006000

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 6, 7

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(DNA-binding, Holliday junction-specific, thermostable; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene Cce1, Holliday junction resolvase; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene Hjc, Holliday junction resolvase; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene recG, helicase; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene rusA, Holliday junction resolvase; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene ruvC, Holliday junction resolvase; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ruvA, Holliday junction recognition; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Proteins**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

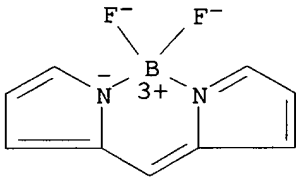
(spCcel, Holliday junction resolvase; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **Gel electrophoresis**
(stable Holliday junction detection by; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **138026-71-8**, Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Bodipy, label; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

IT **138026-71-8**, Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Bodipy, label; methods for mutation detecting in nucleic acids forming stabilized allele-specific Holliday Junctions using Holliday Junction-binding detection mols.)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 10 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:533590 HCAPLUS
DOCUMENT NUMBER: 140:20678
TITLE: Lanthanide-cored supramolecular systems with highly efficient light-harvesting dendritic arrays towards tomorrow's information technology
AUTHOR(S): Kim, Hwan Kyu; Roh, Soo Gyun; Hong, Kyong-Soo; Ka, Jae-Won; Baek, Nam Seob; Oh, Jae Buem; Nah, Min Kook; Cha, Yun Hui; Ko, Jin
CORPORATE SOURCE: Center for Smart Light-Harvesting Materials and Department of Polymer Science & Engineering, Hannam University, Daejeon, 306-791, S. Korea
SOURCE: Macromolecular Research (2003), 11(3), 133-145
CODEN: MRAECT; ISSN: 1598-5032
PUBLISHER: Polymer Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors developed novel lanthanide-cored supramol. systems with highly efficient light-harvesting dendritic arrays for integrated planar waveguide-type amplifiers. Er3+ ions were encapsulated by the supramol. ligands, such as porphyrins and macrobicyclics. The supramol. ligands have been designed and synthesized to provide enough coordination sites for the formation of stable Er(III)-chelated complexes. For getting a higher optical amplification gain, also, the energy levels of the supramol. ligands were tailored to maintain the effective energy transfer

process from supramol. ligands to erbium(III) ions. Furthermore, to maximize the light-harvesting effect, new aryl ether-functionalized dendrons as photon antennas have been incorporated into lanthanide-cored supramol. systems. In this paper, mol. design, synthesis and luminescent properties of novel lanthanide-cored integrated supramol. systems with highly efficient light-harvesting dendritic arrays are discussed.

CC 73-2 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 36, 74, 78

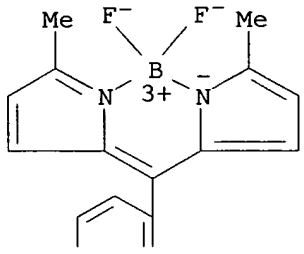
IT 625856-18-0 **631842-84-7** 631913-08-1 631913-12-7
631913-13-8 631913-14-9 631913-15-0 631913-62-7 631913-63-8
631913-82-1 631913-83-2 631914-12-0 631914-13-1 631914-25-5
631914-31-3 631914-39-1 631914-47-1 631914-49-3 631914-50-6
631914-57-3
RL: PRP (Properties)
(supramol. **ligands** for lanthanide-cored complexes with highly efficient light-harvesting dendritic arrays)

IT **631842-84-7**
RL: PRP (Properties)
(supramol. **ligands** for lanthanide-cored complexes with highly efficient light-harvesting dendritic arrays)

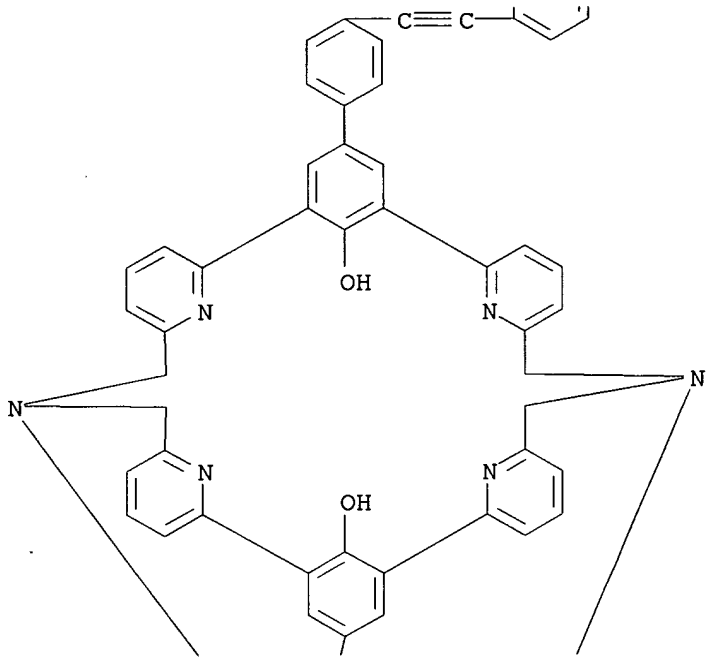
RN 631842-84-7 HCAPLUS

CN Boron, hexafluoro[.mu.3-[10,28,45-tris[4-[[4-[(5-methyl-1H-pyrrol-2-yl-.kappa.N)(5-methyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]phenyl]ethynyl]phenyl]-1,19,54,56,57,59,60,62-octaazaundecacyclo[17.17.17.13,7.18,12.113,17.121,25.126,30.131,35.138,42.143,47.148,52]dohexaconta-3,5,7(62),8,10,12(61),13,15,17(60),21,23,25(59),26,28,30(58),31,33,35(57),38,40,42(56),43,45,47(56),48,50,52(54)-heptacosaene-55,58,61-triolato(3-)]]tri- (9CI) (CA INDEX NAME)

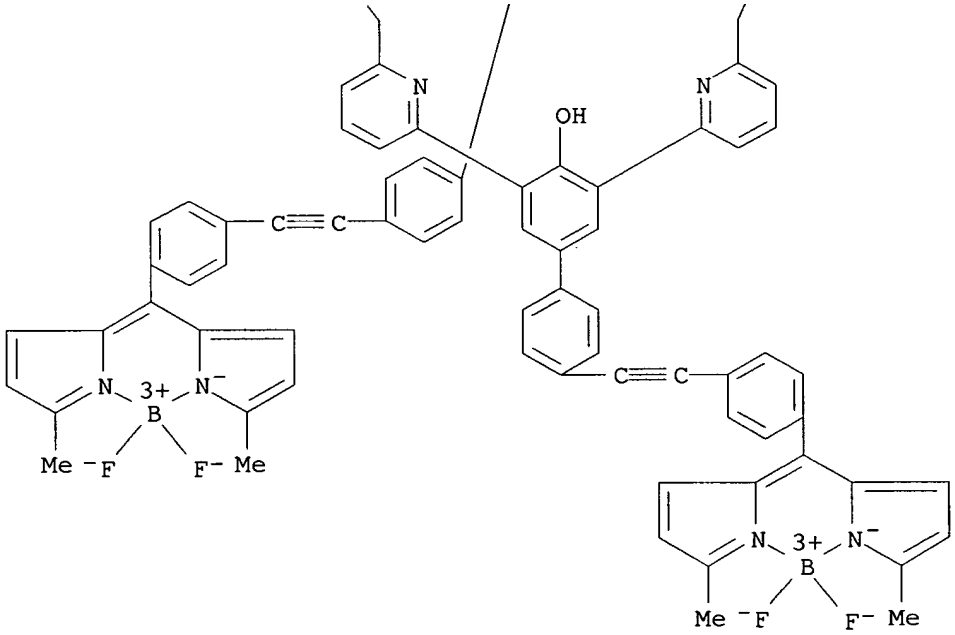
PAGE 1-A



PAGE 2-A



PAGE 3-A



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 11 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:335388 HCAPLUS
DOCUMENT NUMBER: 138:336897
TITLE: Food spoilage amine detection colorimetric method and materials
INVENTOR(S): Kalivretenos, Aristotle G.
PATENT ASSIGNEE(S): University of Maryland, Baltimore County, USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003036260	A2	20030501	WO 2002-US34124	20021025
WO 2003036260	A3	20031113		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003104609	A1	20030605	US 2001-983743	20011025

PRIORITY APPLN. INFO.: US 2001-983743 A 20011025
OTHER SOURCE(S): MARPAT 138:336897

AB Compds. linked to a solid support through a divalent linker moiety are disclosed. In particular, compds. such as 1-hydroxybenzotriazole-6-carboxylic acid are directly linked to the support under mild conditions (i.e., in aq. or org. solvents at neutral pH and at room temp.). The polymer bound 1-hydroxybenzotriazole-6-carboxylic acid can be used for the derivatization of amines as well as for single step amino group modification of proteins, peptides, and amines via acylation or sulfonylation reactions. A flow through device and method for the single step amino group modifications of proteins, peptides, and amines is disclosed. Also disclosed is a flow through device for the detection of amines in a sample. Addnl., a device and method for the detection of amines in a sample using 1-hydroxybenzotriazole-6-carboxylic acid are disclosed. In a preferred embodiment, the device is used to detect the presence of amines in a spoiled meat product. Diagnostic kits for detecting the presence of amines are also disclosed.

IC ICM G01N
CC 17-1 (Food and Feed Chemistry)
IT **Peptides, analysis**
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(amino groups of; food spoilage amine detection colorimetric method and materials)

IT **Glass**, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(food spoilage amine detection colorimetric method and materials)

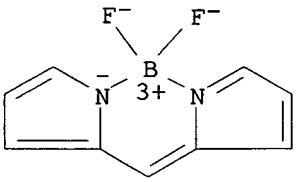
IT **Polyamides, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(food spoilage amine detection colorimetric method and materials)

IT 129-00-0, Pyrene, uses 605-65-2 616-82-0, 4-Hydroxy-3-nitrobenzoic acid 652-34-6, 2,3,5,6-Tetrafluoro-4-hydroxybenzoic acid 2321-07-5, Fluorescein 5006-66-6, 6-Hydroxynicotinic acid 6268-49-1, DABCYL 10028-17-8, Hydrogen-3, uses 13558-31-1 14158-31-7, Iodine-125, uses 14596-37-3, Phosphorus-32, uses 14762-75-5, Carbon-14, uses 15117-53-0, Sulfur-35, uses 16423-68-0, FD&C Red 3 50402-56-7, EDANS 50907-17-0 56512-49-3 82446-52-4, Lucifer yellow 109584-39-6 110167-77-6 **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(food spoilage amine detection colorimetric method and materials)

IT 588-46-5, N-Benzylacetamide 1576-37-0, N-Benzyl-p-toluenesulfonamide 9002-86-2, Pvc 9002-89-5, Polyvinyl alcohol **9003-05-8**, Polyacrylamide 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9003-53-6D, Polystyrene, aminomethyl derivs. 9004-34-6, Cellulose, analysis 9004-35-7, Cellulose acetate 9004-70-0, Nitrocellulose 9012-36-6, Agarose 9012-76-4, Chitosan **24937-79-9**, **PVDF** 25014-41-9, Polyacrylonitrile 25087-26-7 28991-69-7 517891-53-1
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(food spoilage amine detection colorimetric method and materials)

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(food spoilage amine detection colorimetric method and materials)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)

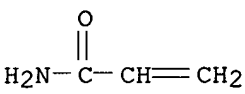


IT **9003-05-8**, Polyacrylamide **24937-79-9**, **PVDF**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(food spoilage amine detection colorimetric method and materials)

RN 9003-05-8 HCAPLUS
CN 2-Propenamide, homopolymer (9CI) (CA INDEX NAME)

CM 1

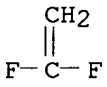
CRN 79-06-1
CMF C3 H5 N O



RN 24937-79-9 HCAPLUS
CN Ethene, 1,1-difluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 75-38-7
CMF C2 H2 F2



L27 ANSWER 12 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:300829 HCAPLUS
DOCUMENT NUMBER: 138:317120
TITLE: Antibody complexes and methods for immunolabeling
INVENTOR(S): Archer, Robert A.; Beechem, Joseph M.; Hagen, David C.; Haugland, Richard P.; Haugland, Rosaria P.
PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003030817	A2	20030417	WO 2002-US31416	20021002
WO 2003030817	A3	20030918		
WO 2003030817	B1	20031106		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003073149	A1	20030417	US 2002-118204	20020405

PRIORITY APPLN. INFO.:
US 2001-329068P P 20011012
US 2002-369418P P 20020401
US 2002-118204 A 20020405

AB The present invention provides labeling reagents and methods for labeling primary antibodies and for detecting a target in a sample using an immuno-labeled complex that comprises a target-binding antibody and one or

more labeling reagents. The labeling reagents comprise monovalent antibody fragments or non-antibody monomeric proteins whereby the labeling proteins have affinity for a specific region of the target-binding antibody and are covalently attached to a label. Typically, the labeling reagent is an anti-Fc Fab or Fab' fragment that was generated by immunizing a goat or rabbit with the Fc fragment of an antibody. The present invention provides for discrete subsets of labeling reagent and immuno-labeled complexes that facilitate the simultaneous detection of multiple targets in a sample wherein the immuno-labeled complexes are distinguished by (i) a ratio of label to labeling reagent, or (ii) a phys. property of said label, or (iii) a ratio of labeling reagent to said target-binding antibody, or (iv) by said target-binding antibody. This is particularly useful for fluorophore labels that can be attached to labeling reagents and subsequently immuno-labeled complexes in ratios for the detection of multiple targets.

IC ICM A61K

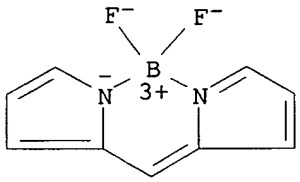
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15

IT 91-64-5, Coumarin **138026-71-8D**, derivs.
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**antibody** complexes and methods for immunolabeling)

IT **138026-71-8D**, derivs.
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**antibody** complexes and methods for immunolabeling)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 13 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:222268 HCAPLUS
DOCUMENT NUMBER: 138:251133
TITLE: Particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection
INVENTOR(S): Cheng, Anthony K.; Kim, Julie S.; Oh, Chan S.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003054569	A1	20030320	US 2001-947990	20010906

WO 2003023353 A2 20030320 WO 2002-US27332 20020827
WO 2003023353 A3 20031231
W: JP
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR
PRIORITY APPLN. INFO.: US 2001-947990 A 20010906

AB The invention provides highly sensitive and rapid homogeneous assays which employ particle-enhanced assay formats in concert with capillary electrophoresis and laser-induced fluorescence (LIF) detection to det. the concn. of an analyte of interest in a sample. Such a detn. is made by measuring fluorescent signal(s) (i.e., an electropherogram) produced upon LIF of species present in the reaction mixt. that are capable of producing such signals. The method of this invention produces simplified electropherograms by reducing the no. of signals that must be sepd. and subsequently measured, and therefore increases the accuracy of the detection and/or quantification of target analyte concn. in a sample.

IC ICM C12Q001-70
ICS C12Q001-68; G01N033-561
NCL 436516000; 435005000; 435006000
CC 9-16 (Biochemical Methods)

IT **Proteins**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(A; particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT **Proteins**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(folate-binding; particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT **Amino acids, analysis**
Carbohydrates, analysis
Enzymes, analysis
Glycoproteins
Haptens
Hormones, animal, analysis
Immunoglobulins
Proteins
Steroids, analysis
Toxins
Vitamins
RL: ANT (Analyte); ANST (Analytical study)
(particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT Antibodies
Antigens
Nucleic acids
Peptides, analysis
Receptors
RL: ANT (Analyte); ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT **Glass**, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT **Polyamides, analysis**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)

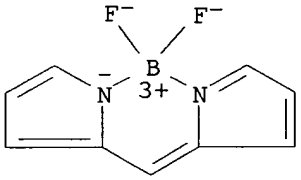
(particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT 302-04-5, Isothiocyanate, uses 643-79-8, o-Phthalaldehyde 2321-07-5, Fluorescein 2321-07-5D, Fluorescein, derivs. 9013-20-1, Streptavidin 12619-70-4, Cyclodextrins 13558-31-1 13558-31-1D, derivs. 14701-22-5, Nickel 2+, uses 16065-83-1, Chromium 3+, uses 20461-54-5, Iodide, uses 22541-53-3, Cobalt 2+, uses 38183-12-9, Fluorescamine 70281-37-7, Tetramethylrhodamine **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(particle based homogeneous assays using capillary electrophoresis with laser-induced fluorescence detection)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 14 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:202827 HCAPLUS
DOCUMENT NUMBER: 138:216463
TITLE: polymorphism detection by bi-directional primer extension with labeled terminator nucleotides
INVENTOR(S): Kunkel, Mark; Gelfand, Craig
PATENT ASSIGNEE(S): Orchid Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020950	A2	20030313	WO 2002-US27262	20020827
WO 2003020950	A3	20030417		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003077584 A1 20030424 US 2001-941138 20010828

PRIORITY APPLN. INFO.: US 2001-941138 A 20010828

AB The present invention provides methods and compns. for detecting polymorphic sites by employing bi-directional primer extension reactions. In one embodiment, the present invention provides methods and compns. that minimize cost of reagents, such as labeled nucleotides, and minimize the cost of detection instrumentation. The term bidirectional or bidirectionally refers to primer extension occurring in an antiparallel fashion with respect to the upper and lower primers. Preferably, this bidirectional primer extension is done substantially simultaneously in one reaction well. Accordingly, the method of the present invention is adaptable for multiplex, high throughput genotyping of one or more alleles. The bidirectional SNP detection method of the present invention in one embodiment, employs both upper and lower strand primers, one or more labeled nucleotides, and a single color label that can be detected by a single channel detection device. Primer sepn. is based upon unique primer tag features that allows for the economical detn. of polymorphic site. Advantages of the bidirectional single color reaction scheme of this invention, over the std. multicolor reaction scheme, are illustrated in Table A. Table A shows that the std. multicolor protocol requires the use of labeled nucleotides bearing different detectable signals, whereas the bidirectional single color scheme allows for one kind of detectable signal to be employed on any labeled nucleotides used in the assay. It is advantageous to employ nucleotides with only one kind of detectable characteristic in that it allows detection by a single channel detection device. Such devices are generally more economical than multichannel detection devices. Also, Table A also reveals that for two biallelic polymorphisms, A/T and G/C, only a single labeled nucleotide is required to successfully interrogate those alleles. This effectively reduces the cost of interrogating those alleles in half, because the majority of the cost of carrying out an interrogation reaction is assocd. with the cost of the labeled nucleotide.

IC ICM C12Q

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9

IT **Glass,** uses
RL: DEV (Device component use); USES (Uses)
(controlled pore, solid support for primer immobilization; polymorphism detection by bi-directional primer extension with labeled terminator nucleotides)

IT **Glass,** uses
Polyamide fibers, uses
Silica gel, uses
RL: DEV (Device component use); USES (Uses)
(solid support for primer immobilization; polymorphism detection by bi-directional primer extension with labeled terminator nucleotides)

IT Haptens
Nucleic acids
Proteins
Radionuclides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(terminating nucleotides labeled with; polymorphism detection by bi-directional primer extension with labeled terminator nucleotides)

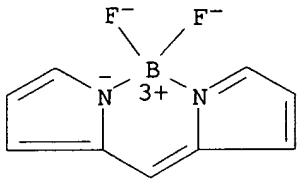
IT 2321-07-5, Fluorescein 75929-56-5, Tamra **138026-71-8,** Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)

(terminating nucleotides labeled with; polymorphism detection by bi-directional primer extension with labeled terminator nucleotides)

IT **138026-71-8**, Bodipy
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(terminating nucleotides labeled with; polymorphism detection by bi-directional primer extension with labeled terminator nucleotides)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 15 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:978088 HCAPLUS
DOCUMENT NUMBER: 138:49890
TITLE: Fluorescence-based methods of screening for ligands of target molecules
INVENTOR(S): Djaballah, Hakim; Rongey, Scott; Patel, Rupal; Wang, Mei Mei; Coyle, Joseph; Li, Bin; Worland, Stephen
PATENT ASSIGNEE(S): Anadys Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 165 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002103321	A2	20021227	WO 2002-US18952	20020613
WO 2002103321	A3	20030320		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003059811	A1	20030327	US 2002-170758	20020613

PRIORITY APPLN. INFO.: US 2001-298531P P 20010614
US 2002-356315P P 20020213

AB The invention provides methods of screening for ligands of target mols. The methods of the invention include assays in which a target mol. is subjected to denaturing conditions, and compds. are screened for the ability to alter the susceptibility of the target to unfolding. The methods of the invention use fluorescence detection to det. that degree of

unfolding of a target mol. In some aspects of the invention, fluorescence resonance energy transfer (FRET) is detected. In other aspects of the invention, fluorescence polarization (FP) is detected. In preferred embodiments, a target mol. such as a target protein is heated to a temp., called TATLAS, at which at least a portion of the target mol. unfolds, in the presence of a test compd. In some embodiments of the invention, the degree of unfolding of the target mol. is detd. by binding of a specific binding member specific for the unfolded form of a target mol. that is coupled to a fluorophore that can participate in FRET. In some other embodiments of the invention, the degree of unfolding of a target mol. is detd. by FRET detection of aggregates of the target mol. In yet other embodiments of the invention, the degree of unfolding of a target mol. is detd. by detection of fluorescence polarization of aggregates of the target mol. The invention provides sensitive, high throughput screens for identifying ligands of target mols. that are not dependent on the identity or function of the target.

IC ICM G01N

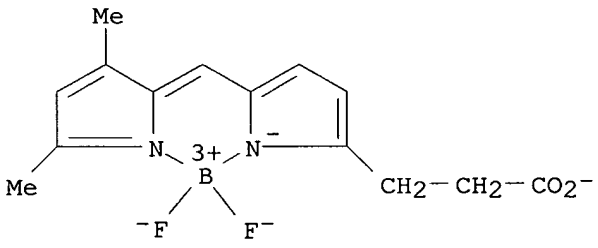
CC 1-1 (Pharmacology)
Section cross-reference(s): 9

IT 2321-07-5, Fluorescein 7440-27-9, Terbium, biological studies 7440-53-1D, Europium, cryptates 50402-56-7, EDANS **165599-63-3**, BODIPY FL 247144-99-6, Alexa 488 247145-38-6, Alexa 568 247145-86-4, Alexa 594 400051-23-2, Alexa Fluor 647
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(FRET donor; fluorescence-based target mol. **ligand** screening)

IT **165599-63-3**, BODIPY FL
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(FRET donor; fluorescence-based target mol. **ligand** screening)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 16 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:965011 HCAPLUS
DOCUMENT NUMBER: 138:35283
TITLE: Homogeneous assay for an enzyme-mediated coupling reaction using biotin derivatives and other thiol

derivatives and identification of phosphorylatable kinase substrate using phage display peptide library
INVENTOR(S): Nikiforov, Theo T.; Jeong, Sang
PATENT ASSIGNEE(S): Caliper Technologies Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 408,884.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

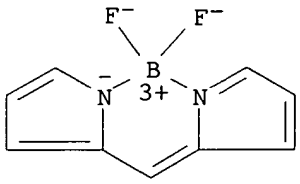
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002192719	A1	20021219	US 2002-183040	20020625
US 6498005	B1	20021224	US 1999-408884	19990929

PRIORITY APPLN. INFO.: US 1998-102486P P 19980930
US 1999-408884 A2 19990929

AB The present invention provides a method of assaying an enzyme-mediated coupling reaction between a first and a second reactant. The method comprises contacting the first reactant with the second reactant in the presence of the enzyme. The second reactant comprises a thiol deriv. to yield a first product comprising a thiol deriv. The thiol deriv. is then detected in the first product. The first reactant may comprise a fluorescent label. In a related aspect, the invention provides contacting the first product with a third reactant, the third reactant comprising a thiol reactive deriv. to yield a second product incorporating the thiol reactive deriv. The method further includes adding a fourth reactant to the second product and measuring a difference in a fluorescent polarization level from the second product as compared to the fluorescence polarization of the first reactant. The thiol reactive deriv. may be a biotin deriv. Another aspect of the present invention is a method of identifying a phosphorylatable substrate for a protein kinase enzyme, such as protein kinase A (PKA). The method provides a phage display peptide library wherein each peptide in the library comprises a conserved phosphorylatable amino acid residue. The phage display library reacts with the kinase and ATP.gamma.S and is then contacted with a biotinylated haloacetate. Any biotinylated phage is captured on a solid support with immobilized streptavidin. DNA from any phage immobilized on the solid support is isolated and sequenced. A phosphorylatable peptide sequence is detd. from a sequence of the DNA isolated from the phage.

IC ICM G01N033-53
ICS C12Q001-26
NCL 435007500; 435025000
CC 7-1 (Enzymes)
IT 2321-07-5D, Fluorescein, peptide conjugate 65189-71-1D, Alexa 647 conjugate **138026-71-8D**, BODIPY, peptide conjugate 171783-05-4D, BODIPY-fluorescein conjugate 276680-69-4D, fluorescein conjugate 400051-23-2D, AlexaFluor 647, peptide conjugate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(PKA substrate; homogeneous assay for enzyme-mediated coupling reaction using **biotin**- and other thiol derivs. and identification of phosphorylatable kinase substrate using phage display peptide library)
IT **138026-71-8D**, BODIPY, peptide conjugate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(PKA substrate; homogeneous assay for enzyme-mediated coupling reaction using **biotin**- and other thiol derivs. and identification of

phosphorylatable kinase substrate using phage display peptide library)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 17 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:876403 HCAPLUS
DOCUMENT NUMBER: 138:234377
TITLE: An integrated solid-phase extraction system for sub-picomolar detection
AUTHOR(S): Jemere, Abebaw Belay; Oleschuk, Richard D.; Ouchen, Fahima; Fajuyigbe, Festus; Harrison, D. Jed
CORPORATE SOURCE: Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2, Can.
SOURCE: Electrophoresis (2002), 23(20), 3537-3544
CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A microchip structure etched on a **glass** substrate for packed column solid-phase extn. (SPE) and capillary electrochromatog. (CEC) is described. A 200 .mu.m long, octadecylsilane (ODS) packed column was secured using two different approaches: solvent lock or polymer entrapment. The former method was utilized for SPE while the latter approach was applied for CEC. In SPE, the ODS packed chamber gave a detection limit of 70 fM for a nonpolar BODIPY (493/503) dye when concd. for 3 min at an electroosmotic flow rate of 4.14 nL/min, compared to 30 pM for this detector without the SPE step. SPE beds showed reproducible, linear calibration curves (R2 = 0.9989) between 1 and 100 pM BODIPY at fixed preconcn. times. Breakthrough curves for the 330 pL (ODS-packed) bed indicated a capacity for BODIPY dye of 8.1.times.10-14 mmol, or 0.25 mmol dye per L of bed. The ODS-chamber could also be used to analyze dil. amino acid and peptide solns. In the CEC format, two neutral dyes (BODIPY and acridine orange) were baseline-sepd. in an isocratic run with a theor. plate count of 84 (420 000 plates/m) and a reduced plate height of about 1. A labeled peptide was also analyzed by CEC, using the acidic eluent (84% acetonitrile, and 26% aq. trifluoroacetic acid (0.05%)) preferred for peptide sepns. on ODS-coated silica particles.
CC 9-16 (Biochemical Methods)
IT Capillary electrochromatography
Electroosmosis
Glass substrates
Lab-on-a-chip
(integrated solid-phase extn. system for sub-picomolar detection)
IT **Amino acids, analysis**
Peptides, analysis

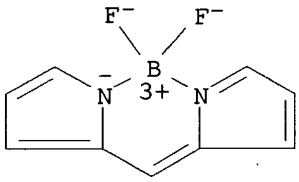
RL: ANT (Analyte); ANST (Analytical study)
(integrated solid-phase extn. system for sub-picomolar detection)

IT 65-61-2, Acridine orange **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(integrated solid-phase extn. system for sub-picomolar detection)

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process); USES (Uses)
(integrated solid-phase extn. system for sub-picomolar detection)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 18 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:778091 HCAPLUS
DOCUMENT NUMBER: 137:291280
TITLE: Modular molecular clasps
INVENTOR(S): Rizzuto, Carlo Dante; Afeyan, Noubar Boghos; Lee, Frank Don; Church, George Mcdonald; Das Gupta, Ruchira; Schwartz, John Jacob; Zhang, Bin; Lugovskoy, Alexey Alexandrovich
PATENT ASSIGNEE(S): Engeneos, Inc., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079387	A2	20021010	WO 2002-US10171	20020328
WO 2002079387	A3	20030220		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2002192721 A1 20021219 US 2001-995847 20011128
PRIORITY APPLN. INFO.: US 2001-279524P P 20010328
US 2001-995847 A 20011128

AB The authors disclose artificial constructs termed modular mol. clasps and their application in the health care industry, e.g., in therapy, in clin. diagnostics, in in vivo imaging or in drug discovery. Modular mol. clasps are, minimally, comprised of a mol. recognition domain, a conformationally active transducer domain, and an effector domain. In one example, a fusion protein comprising cyan fluorescent protein was joined N-terminal to an anti-gp120 scFv antibody; this in turn was joined N-terminal to yellow fluorescent protein.

IC ICM C12N

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 1, 15

IT **209340-49-8**, BODIPY 630/650
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY 630/650; of modular mol. clasps mediating **ligand** recognition and detection)

IT **174881-57-3**, BODIPY R 6G
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY R 6G; of modular mol. clasps mediating **ligand** recognition and detection)

IT **287384-28-5**, BODIPY TMR
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY TMR; of modular mol. clasps mediating **ligand** recognition and detection)

IT 129-00-0, Pyrene, uses 605-65-2, Dansyl chloride 989-38-8, Rhodamine 6G 2321-07-5, Fluorescein 3520-42-1, Lissamine rhodamine B 16423-68-0, Erythrosin 17372-87-1, Eosin 30230-57-0D, dialkyl derivs. 43070-85-5, Hydroxycoumarin 61419-02-1, Naphthofluorescein 70281-37-7, Tetramethyl-rhodamine 76823-03-5, FAM 82354-19-6, Texas Red 82855-40-1, JOE 99752-92-8, Rhodamine red 106562-32-7, AMCA 109811-90-7, Dapoxyl 112117-57-4 117557-83-2 123499-77-4 **150152-69-5**, BODIPY 581/591 **150173-72-1**, BODIPY 558/568 **150173-78-7**, BODIPY 576/589 **150173-89-0**, BODIPY 564/570 151820-47-2, DM-NERF 155862-97-8, PyMPO maleimide **165599-63-3**, BODIPY FL 169799-38-6, Ird 40 172777-84-3, Cy5.5 183185-51-5, Rhodol green **187089-10-7**, BODIPY 530/550 189200-71-3, Rhodamine green 189767-45-1, Cy3.5 195136-58-4, Oregon Green 488 198139-49-0 199745-67-0, Texas red x 204934-16-7, BODIPY TR 215868-23-8, Marina blue 215868-31-8, Pacific blue 220930-95-0, Cascade yellow 247144-99-6, Alexa Fluor 488 247145-11-5, Alexa Fluor 532 247145-23-9, Alexa Fluor 546 247145-38-6, Alexa Fluor 568 247145-86-4, Alexa Fluor 594 251102-88-2, IRD 700 256651-38-4, IRD 800 422309-67-9, Alexa fluor 680 422309-89-5, Alexa fluor 660 468730-48-5 469863-23-8, Ds Red
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(of modular mol. clasps mediating **ligand** recognition and detection)

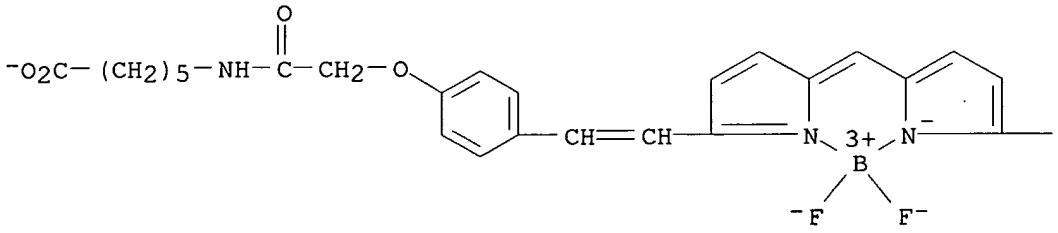
IT **209340-49-8**, BODIPY 630/650
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY 630/650; of modular mol. clasps mediating **ligand** recognition and detection)

RN 209340-49-8 HCAPLUS

CN Borate(1-), difluoro[6-[[[4-[2-[2-[[5-(2-thienyl)-1H-pyrrol-2-yl-.kappa.N]methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]acetyl]amino]h

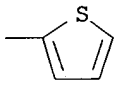
exanoato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A

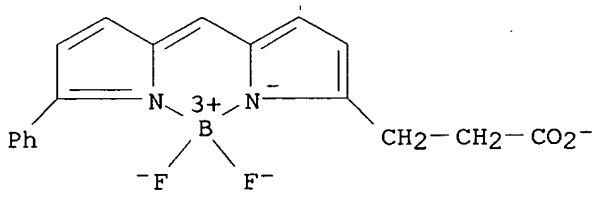


● H^+

PAGE 1-B



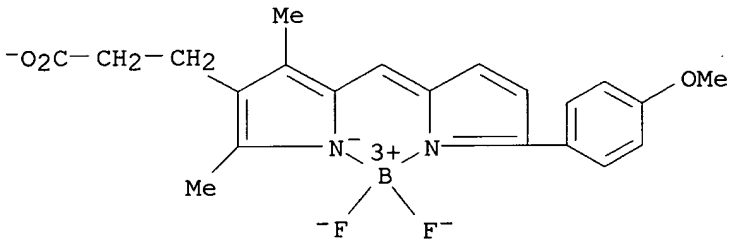
IT **174881-57-3,** BODIPY R 6G
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY R 6G; of modular mol. clasps mediating **ligand** recognition and detection)
RN 174881-57-3 HCAPLUS
CN Borate(1-), difluoro[5-[(5-phenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

IT **287384-28-5,** BODIPY TMR
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY TMR; of modular mol. clasps mediating **ligand** recognition and detection)

RN 287384-28-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



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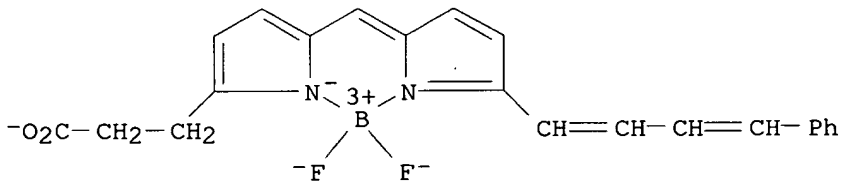
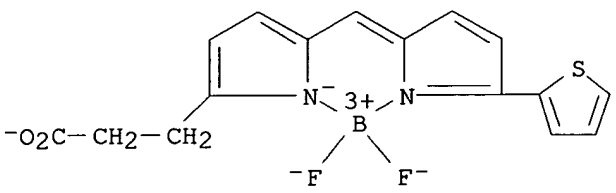
IT **150152-69-5**, BODIPY 581/591 **150173-72-1**, BODIPY 558/568
150173-78-7, BODIPY 576/589 **150173-89-0**, BODIPY 564/570
165599-63-3, BODIPY FL **187089-10-7**, BODIPY 530/550
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(of modular mol. clasps mediating **ligand** recognition and detection)

RN 150152-69-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-[(1E,3E)-4-phenyl-1,3-butadienyl]-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



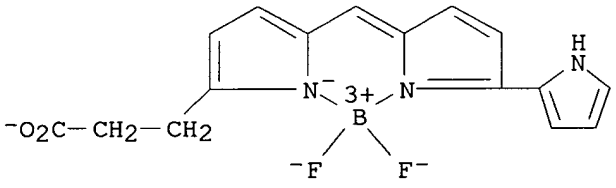
● H^{+}

RN 150173-72-1 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



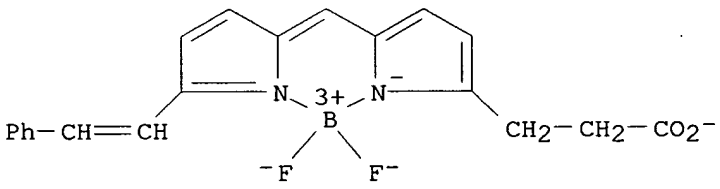
● H^+

RN 150173-78-7 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)-(9CI) (CA INDEX NAME)



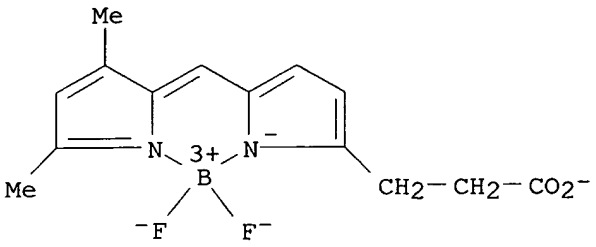
● H^+

RN 150173-89-0 HCAPLUS
CN Borate(1-), difluoro[5-[[5-[(1E)-2-phenylethenyl]-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)-(9CI) (CA INDEX NAME)



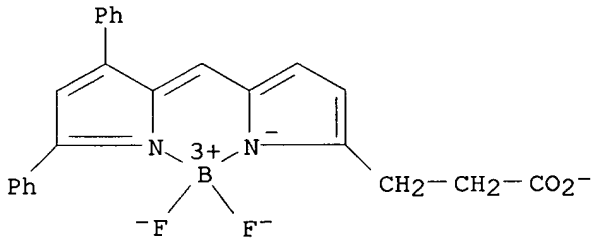
● H^+

RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

RN 187089-10-7 HCAPLUS
CN Borate(1-), [5-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

L27 ANSWER 19 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:615942 HCAPLUS
DOCUMENT NUMBER: 137:165832
TITLE: Activity based probe analysis
INVENTOR(S): Patricelli, Matthew P.
PATENT ASSIGNEE(S): Activx Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002063271	A2	20020815	WO 2002-US3808	20020205
WO 2002063271	C1	20021024		
WO 2002063271	A3	20030710		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1364209 A2 20031126 EP 2002-714857 20020205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2003175986 A1 20030918 US 2002-49164 20021021

PRIORITY APPLN. INFO.: US 2001-266687P P 20010205
US 2001-339424P P 20011211
WO 2002-US3808 W 20020205

OTHER SOURCE(S): MARPAT 137:165832

AB The invention concerns methods and compns. are described for analyzing complex protein mixts. using fluorescent activity-based probes. In particular, probes that specifically react with and bind to the active form of one or more target proteins are employed. Fluorescent signals obtained from the labeled active target proteins can be related to the presence or amt. of active members of the desired target protein class. The methods and compns. described herein can be used, for example, to provide diagnostic information concerning pathogenic states, in identifying proteins that may act as therapeutic targets, and in drug discovery.

IC ICM G01N

CC 9-14 (Biochemical Methods)
Section cross-reference(s): 1, 14

IT Capillary electrophoresis
Cyanine dyes
Diagnosis
Diffusion
Drug screening
Dyes
Electrophoresis apparatus
Fluorescent substances
Fluorometry
Functional groups
Gel electrophoresis
Labels
Mass spectrometry
Pathogen
Separation
(activity based probe anal.)

IT **Proteins**
RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)
(mixt.; activity based probe anal.)

IT 91-64-5, Coumarin 92-83-1, Xanthene 7440-18-8D, Ruthenium, chelates 7440-27-9D, Terbium, chelates 7440-52-0D, Erbium, chelates 25168-10-9, Naphthylamine **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(activity based probe anal.)

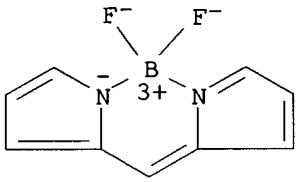
IT **446828-34-8P 446828-36-0P** 446850-41-5P 446850-43-7P 446850-45-9P 446850-47-1P

RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(activity based probe anal.)

IT **138026-71-8,** BODIPY
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(activity based probe anal.)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)

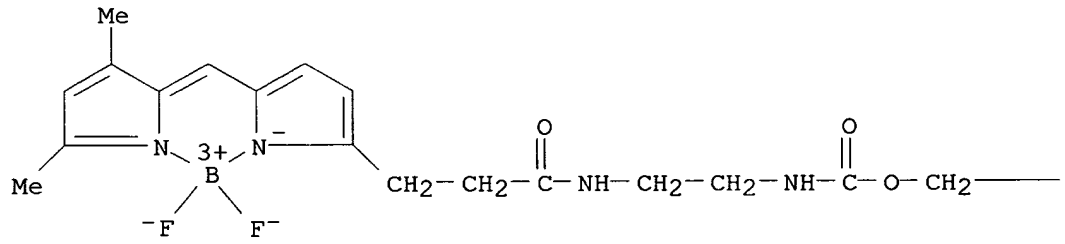


IT **446828-34-8P 446828-36-0P**
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(activity based probe anal.)

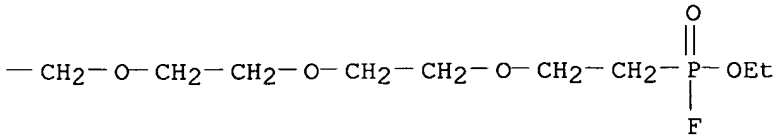
RN 446828-34-8 HCAPLUS

CN Boron, difluoro[12-fluoro-12-oxido-3,6,9,13-tetraoxa-12-phosphapentadec-1-yl [2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]ethyl]carbamato]-, (T-4)- (9CI) (CA INDEX NAME)

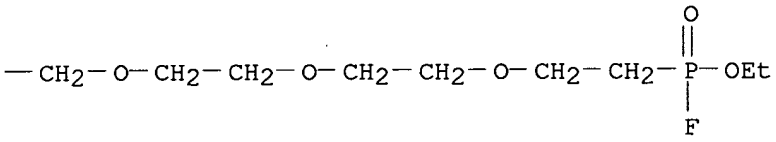
PAGE 1-A



PAGE 1-B

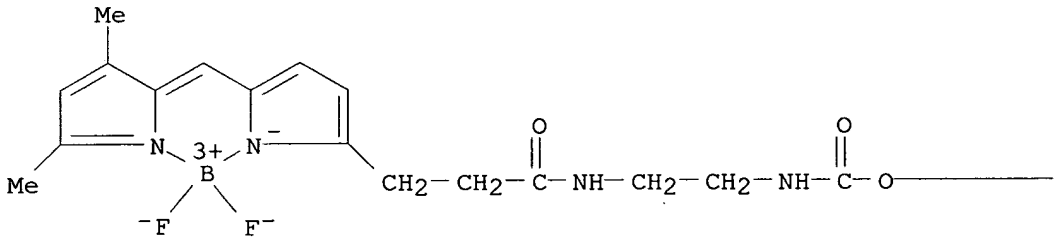


PAGE 1-B

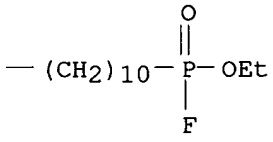


RN 446828-36-0 HCAPLUS
CN Boron, [10-(ethoxyfluorophosphinyl)decyl [2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]ethyl]carbamato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L27 ANSWER 20 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:575639 HCAPLUS
DOCUMENT NUMBER: 137:121891
TITLE: Protein microarrays
INVENTOR(S): MacBeath, Gavin; Schreiber, Stuart L.; Sorger, Peter K.; Cardone, Michael H.; Newman, John
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 28 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002102617	A1	20020801	US 2001-923243	20010803
US 2004038428	A1	20040226	US 2003-404619	20030401

PRIORITY APPLN. INFO.: US 2000-222709P P 20000803
US 2001-297897P P 20010613
US 2001-923243 A3 20010803

AB Driven by the influx of data from genome sequencing projects, systematic efforts are now underway to construct defined sets of cloned genes for high throughput expression and purifn. of recombinant proteins. To facilitate the subsequent study of protein function, the present invention provides protein microarrays that are compatible with the demand for extremely low sample vol. and the rapid, simultaneous processing of thousands of proteins, and methods of assaying these arrays. The proteins are covalently or non-covalently attached to the surface of a solid support and retain their ability to interact specifically with other proteins, polynucleotides, other biol. macromols., or small mols.

IC ICM G01N033-53
ICS G01N033-542; C12M001-34

NCL 435007900

CC 9-1 (Biochemical Methods)

IT Immunoglobulins
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(G; protein microarrays)

IT Polynucleotides
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(protein microarrays)

IT **Glass**, uses
Metals, uses
Polymers, uses
RL: DEV (Device component use); USES (Uses)
(protein microarrays)

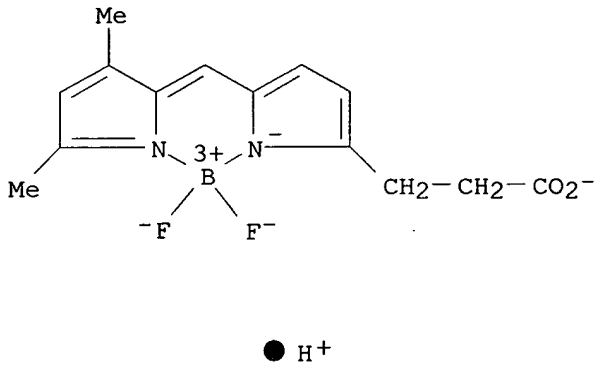
IT **Proteins**
RL: ANT (Analyte); ANST (Analytical study)
(recombinant; protein microarrays)

IT 146368-14-1, Cy5 146397-20-8, Cy3 **165599-63-3**, BODIPY-FL
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(protein microarrays)

IT **165599-63-3**, BODIPY-FL
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(protein microarrays)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 21 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:573255 HCAPLUS
DOCUMENT NUMBER: 137:106041
TITLE: Competitive prion reagents containing Congo red derivatives and their application for diagnostics and raising antibodies for immunotherapy
INVENTOR(S): Langhals, Heinz
PATENT ASSIGNEE(S): Germany
SOURCE: Ger. Offen., 20 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10104279	A1	20020801	DE 2001-10104279	20010131

PRIORITY APPLN. INFO.: DE 2001-10104279 20010131
OTHER SOURCE(S): MARPAT 137:106041

AB The invention concerns a fluorescent dye for the detection of prions that contains a low mol. part with binding affinity to prion, typically Conco red or its deriv., a spacer and a fluorescent chromophore, e.g. a perylene deriv.; the dye complex is used for the diagnosis of prion diseases and in conjunction with antigens for producing antibodies to treat prion diseases. For detection polarized fluorometry is applied.

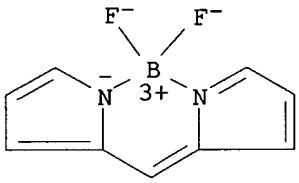
IC ICM G01N033-52
ICS A61K039-00; A61K039-395
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 15, 63
IT 81-33-4D, conjugate with Congor red deriv. and antigenic polypeptides 81-88-9D, derivs., conjugate with Congor red deriv. and antigenic polypeptides 91-64-5D, Coumarin, derivs., conjugate with Congor red deriv. and antigenic polypeptides 573-58-0, Congo red 573-58-0D, Congo red, derivs., conjugates with fluorescence chromophore and antigenic polypeptides 2321-07-5D, Fluorescein, derivs., conjugate with Congor red deriv. and antigenic polypeptides **138026-71-8D**, BODIPY, derivs., conjugate with Congor red deriv. and antigenic polypeptides
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(competitive prion reagents contg. Congo red derivs. and application

for diagnostics and raising **antibodies** for immunotherapy)

IT **138026-71-8D**, BODIPY, derivs., conjugate with Congor red deriv. and antigenic polypeptides
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(competitive prion reagents contg. Congo red derivs. and application for diagnostics and raising **antibodies** for immunotherapy)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 22 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:570665 HCAPLUS
DOCUMENT NUMBER: 137:121946
TITLE: Difference detection methods using matched multiple dyes
INVENTOR(S): Minden, Jonathan; Waggoner, Alan; Fowler, Susan Janet
PATENT ASSIGNEE(S): Carnegie Mellon University, USA
SOURCE: U.S., 27 pp., Cont.-in-part of U.S. 6,127,134.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6426190	B1	20020730	US 1999-370743	19990809
US 6127134	A	20001003	US 1995-425480	19950420
CA 2218528	AA	19961024	CA 1996-2218528	19960419
CA 2218528	C	20030624		
US 6043025	A	20000328	US 1997-949115	19971010
AU 9959500	A1	20000203	AU 1999-59500	19991117
AU 740831	B2	20011115		
WO 2001011373	A2	20010215	WO 2000-US21766	20000809
WO 2001011373	A3	20010712		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1200833	A1	20020502	EP 2000-952693	20000809

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003506718 T2 20030218 JP 2001-515977 20000809
US 2002177122 A1 20021128 US 2002-137180 20020501
PRIORITY APPLN. INFO.: US 1995-425480 A2 19950420
US 1999-370743 A 19990809
WO 2000-US21766 W 20000809
OTHER SOURCE(S): MARPAT 137:121946

AB A process and a kit are provided for detecting differences in two or more samples of protein, including proteins bearing post-translational modifications and peptides. Proteins are prepd., for example, from each of a different group of cell samples or body fluid samples to be compared. Each protein ext. is labeled with a different one of a luminescent dye from a matched set of dyes. The matched dyes have generally the same ionic and pH characteristics but emit light at different wavelengths to exhibit a different color upon luminescence detection. The labeled protein exts. are mixed together and sepd. together by electrophoresis or a chromatog. method. The sepn. is obsd. to detect proteins unique to one sample or present in a greater ratio in one sample than in the other. Those unique or excess proteins will fluoresce the color of one of the dyes used. Proteins common to each sample migrate together and fluoresce the same.

IC ICM G01N033-53
ICS G01N033-00; C12Q001-00; C07K001-00
NCL 435007200
CC 9-16 (Biochemical Methods)
IT **Gel electrophoresis**
(capillary; difference detection methods using matched multiple dyes)
IT Affinity chromatography
Alkyl groups
Amino group
Bacteria (Eubacteria)
Body fluid
Capillary isoelectric focusing
Capillary zone electrophoresis
Cell
Chemical formula
Chromatography
Composition
Cyanine dyes
Cytolysis
Digestion, chemical
Dyes
Electric charge
Electrophoresis
Extraction
Fluorescence microscopy
Fluorometry
Formyl group
Gel electrophoresis
Hydrophobic interaction chromatography
Ion exchange chromatography
Ions
Isotachophoresis
Light
Linking agents
Liquid chromatography

Luminescence spectroscopy
Micellar electrokinetic chromatography
Mixing
Mixtures
Oxidation
Reaction
Reversed phase chromatography
Samples
Separation
Size-exclusion chromatography
Sulfhydryl group
Test kits
Translation, genetic
Wavelength
pH
(difference detection methods using matched multiple dyes)

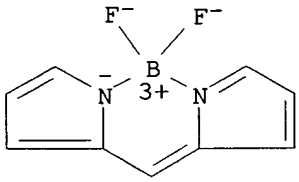
IT Glycoproteins
Peptides, analysis
Phosphoproteins
Proteins
RL: ANT (Analyte); ANST (Analytical study)
(difference detection methods using matched multiple dyes)

IT **Gel electrophoresis**
(two-dimensional; difference detection methods using matched multiple dyes)

IT **138026-71-8,** Dipyrromethene boron difluoride
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(difference detection methods using matched multiple dyes)

IT **138026-71-8,** Dipyrromethene boron difluoride
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(difference detection methods using matched multiple dyes)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 23 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:543668 HCAPLUS
DOCUMENT NUMBER: 138:162917
TITLE: Identification of the ability of highly charged nanomolar inhibitors of protein kinases to cross plasma membranes and carry a protein into cells
AUTHOR(S): Uri, Asko; Raidaru, Gerda; Subbi, Juhan; Padari, Kart; Pooga, Margus
CORPORATE SOURCE: Institute of Organic and Bioorganic Chemistry,

University of Tartu, Tartu, 51014, Estonia
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(16), 2117-2120
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A fluorescently labeled adenosine-oligoarginine conjugate (ARC), nanomolar bisubstrate analog-type inhibitor of basophilic protein kinases PKA and PKC, readily enters cells of different origin and localizes into cytoplasm and nucleus. Moreover, the biotinylated deriv. of ARC is able to deliver avidin, a non-covalently attached protein cargo, into cells.

CC 1-2 (Pharmacology)
Section cross-reference(s): 63

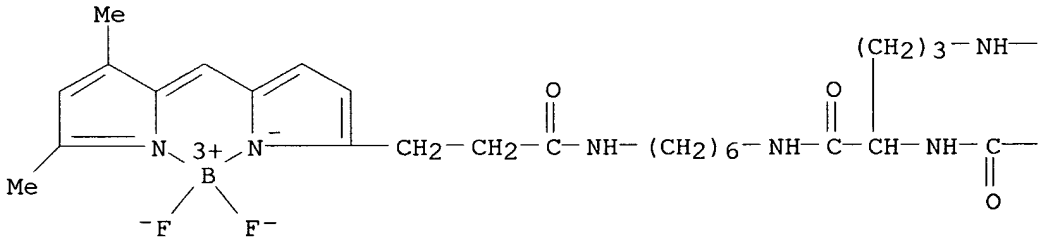
IT 497858-48-7 **497859-32-2**
RL: PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification of ability of highly charged nanomolar inhibitors of protein kinases to cross plasma membranes and carry **avidin** into cells)

IT **497859-32-2**
RL: PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(identification of ability of highly charged nanomolar inhibitors of protein kinases to cross plasma membranes and carry **avidin** into cells)

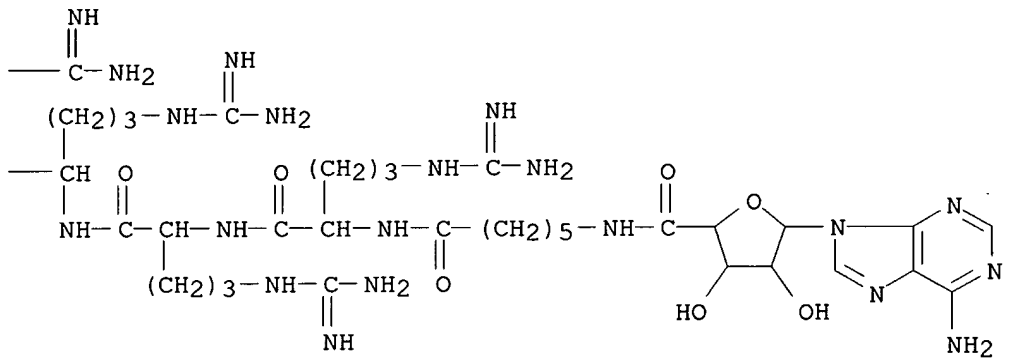
RN 497859-32-2 HCAPLUS

CN Boron, [N2-[6-[[1-(6-amino-9H-purin-9-yl)-1-deoxy-.beta.-D-ribofuranuronoyl]amino]-1-oxohexyl]-L-arginyl-L-arginyl-L-arginyl-N-[6-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]hexyl]-L-argininamidato]difluoro-, (T-4)-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 24 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:540191 HCAPLUS
DOCUMENT NUMBER: 137:106001
TITLE: Arrays of biological membranes and methods and use thereof
INVENTOR(S): Fang, Ye; Frutos, Anthony G.; Jonas, Steven J.; Kalal, Peter J.; Lahiri, Joydeep
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S. Ser. No. 854,786.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002094544	A1	20020718	US 2001-974415	20011009
US 2002019015	A1	20020214	US 2001-854786	20010514
WO 2002092833	A2	20021121	WO 2002-US11332	20020403
WO 2002092833	A3	20031009		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

EP 1388010	A2	20040211	EP 2002-728731	20020403

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

US 2000-224135P	P	20000810
US 2001-854786	A2	20010514
US 2001-974415	A	20011009
WO 2002-US11332	W	20020403

AB The present invention overcomes the problems and disadvantages assocd.

with prior art arrays by providing an array comprising a plurality of biol. membrane microspots assocd. with a surface of a substrate that can be produced, used and stored, not in an aq. environment, but in an environment exposed to air under ambient or controlled humidities. Preferably, the biol. membrane microspots comprise a membrane bound protein. Most preferably, the membrane bound protein is a G-protein coupled receptor, an ion channel, a receptor serine/threonine kinase or a receptor tyrosine kinase.

IC ICM G01N033-53
ICS G01N033-542; C12M001-34

NCL 435007900

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 7

IT Acid halides
Esters, uses
Glass, uses
Metals, uses
Phosphatidylcholines, uses
Plastics, uses
Polymers, uses
Silanes
Thiols (organic), uses
RL: DEV (Device component use); USES (Uses)
(arrays of biol. membranes and methods and use thereof)

IT **Proteins**
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(membrane; arrays of biol. membranes and methods and use thereof)

IT **228265-94-9**, BODIPY FL-Sch 23390
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(BODIPY FL-Sch 23390; arrays of biol. membranes and methods and use thereof)

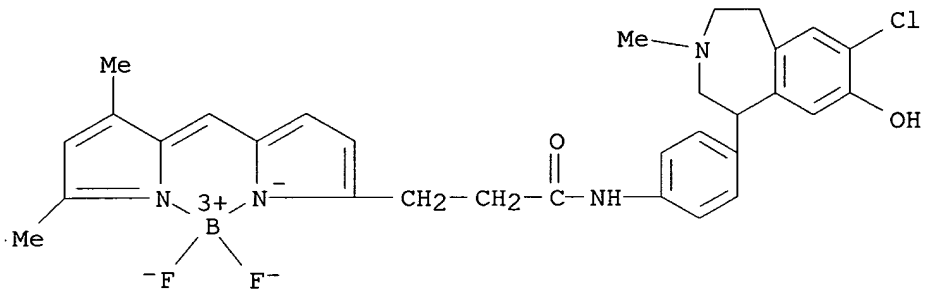
IT **287384-28-5D**, BODIPY TMR, conjugates with neurotensin and CGP 12177
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(BODIPY TMR; arrays of biol. membranes and methods and use thereof)

IT 60-00-4, EDTA, analysis 139-13-9, Nitrilotriacetic acid 63741-19-5 **265310-03-0**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(arrays of biol. membranes and methods and use thereof)

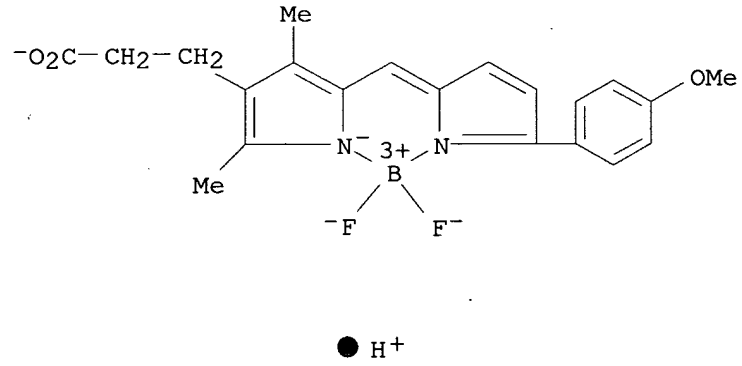
IT **228265-94-9**, BODIPY FL-Sch 23390
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(BODIPY FL-Sch 23390; arrays of biol. membranes and methods and use thereof)

RN 228265-94-9 HCAPLUS

CN Boron, [N-[4-[(1R)-7-chloro-2,3,4,5-tetrahydro-8-hydroxy-3-methyl-1H-3-benzazepin-1-yl]phenyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)

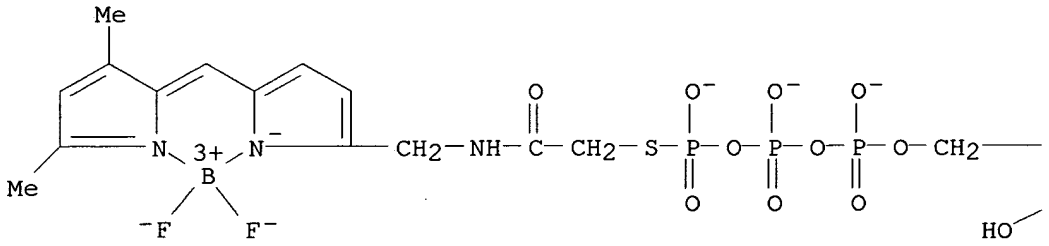


IT **287384-28-5D**, BODIPY TMR, conjugates with neurotensin and CGP 12177
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(BODIPY TMR; arrays of biol. membranes and methods and use thereof)
RN 287384-28-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



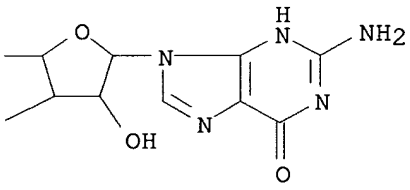
IT **265310-03-0**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(arrays of biol. membranes and methods and use thereof)
RN 265310-03-0 HCAPLUS
CN Borate(3-), difluoro[guanosine 5'-(diphosphate) P'-anhydride with N-[[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]methyl]-2-(phosphonothio)acetamidato(4-)]-, trihydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



●3 H^+

PAGE 1-B



L27 ANSWER 25 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:516931 HCAPLUS
DOCUMENT NUMBER: 137:273306
TITLE: Ligand binding and structural properties of the Cys166-Leu296 segment of GABAA receptor .alpha.1 subunit
AUTHOR(S): Deng, Yi-Qun; Zhu, Zhen-Yu; Ma, Jian-Quan; Xue, Hong
CORPORATE SOURCE: Department of Biochemistry, Sun Yat-sen University of Medical Sciences, Canton, 510089, Peop. Rep. China
SOURCE: Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao (2002), 18(3), 367-372
CODEN: ZSHXF2; ISSN: 1007-7626
PUBLISHER: Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao Bianweihui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB To det. benzodiazepine (BZ)-binding site and structural properties of the Cys166-Leu296 segment of GABAA receptor .alpha.1 subunit and to study the structure-function relationship of this fragment, every residue in the segment was converted to alanine by the aid of Pfu DNA polymerase-based site-directed mutagenesis (alanine scanning mutagenesis). All of alanine-substitution mutants were overexpressed in Escherichia coli, and purified for structural anal. by CD and the fluorescent BZ Bodipy-FL

Ro-1986 binding studies by fluorescence anisotropy and fluorescence resonance energy transfer measurements. The individual contribution of each residue was evaluated to both the secondary structure and the binding affinity as compared with the wild type Cys166-Leu296. Compared with the wild type, V279A, R191A, G212A, S213A and R214A mutants caused statistically significant 2-3 fold redns. in binding affinity. Among these, only V279A changed the secondary structure shown a significant increase in .alpha.-helix. E193A, S278A, P280A mutants showed the significant increases in .alpha.-helix while the decreases in .alpha.-helix caused by N275A and R276A were also significant. It suggested that Arg191, Gly212, Ser213 and Arg214 were involved in BZ-binding site directly. The loop 4 in the Cys166-Leu296 contg. Gly212, Ser213, Arg214 may be crucial for BZ binding. Ser278, Val279 and Pro280 probably contributed to the maintenance of the .beta.-stranded structure, Asn275 and Arg276 may be involved in maintaining the .alpha.-helical structure. These results suggested that the loop 9 of the wild type contg. such residues was the important domain with respect to the structure.

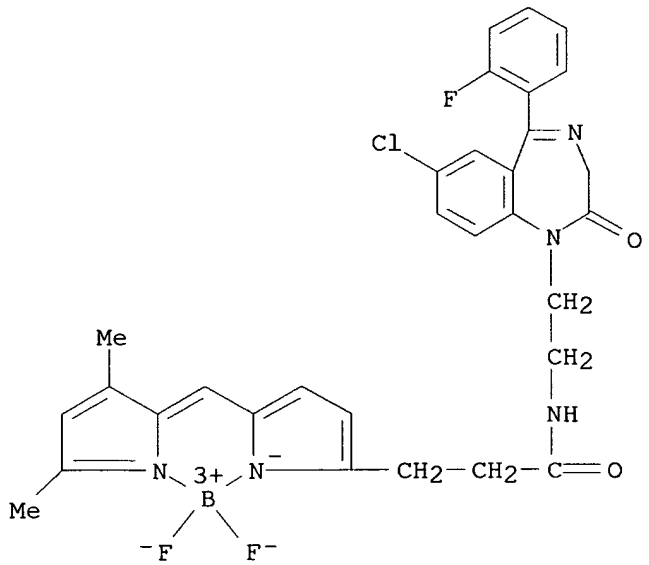
CC 2-2 (Mammalian Hormones)

IT **216483-91-9**, Bodipy FL Ro 1986
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Bodipy FL Ro 1986; benzodiazepine **ligand** binding and structural properties of Cys166-Leu296 segment of GABAA receptor .alpha.1 subunit)

IT **216483-91-9**, Bodipy FL Ro 1986
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Bodipy FL Ro 1986; benzodiazepine **ligand** binding and structural properties of Cys166-Leu296 segment of GABAA receptor .alpha.1 subunit)

RN 216483-91-9 HCAPLUS

CN Boron, [N-[2-[7-chloro-5-(2-fluorophenyl)-2,3-dihydro-2-oxo-1H-1,4-benzodiazepin-1-yl]ethyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)



L27 ANSWER 26 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:462548 HCAPLUS
DOCUMENT NUMBER: 137:30228
TITLE: Use of a poly(amino-acid)-metal ion complex to link a label to a species of interest
INVENTOR(S): Twu, Jesse J.
PATENT ASSIGNEE(S): Molecular Devices Corporation, USA
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1215501	A1	20020619	EP 2001-310076	20011130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002132254	A1	20020919	US 2001-172	20011130

PRIORITY APPLN. INFO.: US 2000-250681P P 20001130

AB Systems, including compns. and methods, for purifying and/or labeling proteins or other mols. of interest and/or for assaying the conformational and/or binding states of such mols. are described. The compns. may include products having the formula T-P-M-L where T is a species, M is a metal ion, P is a peptide or protein that binds the metal ion, and L is a luminescent label. The methods may include purifying and/or labeling a mol. of interest, detecting luminescence energy transfer, detecting dissocn. and/or assocn. of a mol. or mols. of interest, detecting a conformational change in a mol. of interest, and detecting an analyte, among others.

IC ICM G01N033-58
CC 9-5 (Biochemical Methods)
IT **Amino acids, reactions**
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(labeled; poly(amino acid)-metal ion complexes to link labels to species of interest)
IT Nucleic acids
Oligonucleotides
Proteins
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(labeled; poly(amino acid)-metal ion complexes to link labels to species of interest)
IT **Peptides, preparation**
Proteins
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(metal ion complexes; poly(amino acid)-metal ion complexes to link labels to species of interest)
IT **Polyamides, preparation**
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant

or reagent); USES (Uses)
(poly(amino acids), metal ion complexes; poly(amino acid)-metal ion complexes to link labels to species of interest)

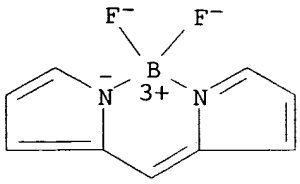
IT **Proteins**
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(purifn. or labeling of; poly(amino acid)-metal ion complexes to link labels to species of interest)

IT 51-17-2D, Benzimidazole, compds., conjugates with metal ion complexes 91-20-3D, Naphthalene, compds., conjugates with metal ion complexes 91-64-5D, Coumarin, compds., conjugates with metal ion complexes 92-81-9D, Carbazine, compds., conjugates with metal ion complexes 120-12-7D, Anthracene, compds., conjugates with metal ion complexes 129-00-0D, Pyrene, compds., conjugates with metal ion complexes 135-67-1D, Phenoxazine, compds., conjugates with metal ion complexes 139-13-9D, Nitrilotriacetic acid, conjugates with fluorescent dye and complexes with metal ion 218-01-9D, Chrysene, compds., conjugates with metal ion complexes 260-94-6D, Acridine, compds., conjugates with metal ion complexes 588-59-0D, Stilbene, compds., conjugates with metal ion complexes 2321-07-5D, Fluorescein, compds., conjugates with metal ion complexes 3086-44-0D, Rhodol, compds., conjugates with metal ion complexes 3546-21-2D, Ethidium, compds., conjugates with metal ion complexes 6837-70-3D, Rosamine, compds., conjugates with metal ion complexes 13558-31-1D, compds., conjugates with metal ion complexes 14701-22-5D, complexes with peptide and conjugates with luminophor, uses 20074-52-6D, Ferric ion, complexes with phosphopeptide and conjugates with luminophor, uses 22537-33-3D, Gallium, ion (Ga3+), complexes with phosphopeptide and conjugates with luminophor, uses 22541-18-0D, Eu+3, complexes with poly(amino acid) and conjugates with luminophor, uses 22541-20-4D, Terbium, ion (Tb3+), complexes with poly(amino acid) and conjugates with luminophor, uses 36015-30-2D, Propidium, compds., conjugates with metal ion complexes **138026-71-8D**, Dipyrromethene boron difluoride, compds., conjugates with metal ion complexes **436139-07-0D**, compds., conjugates with metal ion complexes
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(poly(amino acid)-metal ion complexes to link labels to species of interest)

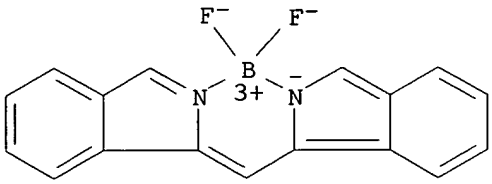
IT **138026-71-8D**, Dipyrromethene boron difluoride, compds., conjugates with metal ion complexes **436139-07-0D**, compds., conjugates with metal ion complexes
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(poly(amino acid)-metal ion complexes to link labels to species of interest)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



RN 436139-07-0 HCAPLUS
CN Boron, difluoro[1-[(2H-isoindol-1-yl-.kappa.N)methylene]-1H-isoindolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 27 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:449855 HCAPLUS
DOCUMENT NUMBER: 137:30254
TITLE: Fluorescent labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technologies for in vitro analysis of protein interactions
INVENTOR(S): Yanagawa, Hiroshi; Doi, Nobuhide; Miyamoto, Etsuko; Takashima, Hideaki; Oyama, Rieko
PATENT ASSIGNEE(S): Keio University, Japan
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046395	A1	20020613	WO 2001-JP10731	20011207
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1350846	A1	20031008	EP 2001-999645	20011207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: JP 2000-373105 A 20001207
WO 2001-JP10731 W 20011207

AB A method for modifying protein C-terminal with a reagent which contains an acceptor region having a group capable of binding to a protein through a transpeptidation reaction and a modifying region contg. a modifier linked to the acceptor region via a nucleotide linker, is disclosed. A template contg. an ORF encoding a protein, a 5'-unntranslated region (UTR) contg. a promoter and an enhancer located in the 5'-side of the ORF and a 3'-terminal region contg. a PolyA sequence located in the 3'-side of the ORF is expressed to thereby synthesize a protein. The protein thus synthesized is then purified. The yield of the modified protein in the protein C-terminal modification method can be largely improved and protein interactions can be detected at an improved level in the method of detecting interactions among various mols. The authors developed and

tested a simple method for fluorescence labeling and interaction anal. of proteins based on a highly efficient in vitro translation system combined with high-throughput technologies such as microarrays and fluorescence cross-correlation spectroscopy (FCCS). By use of puromycin analogs linked to various fluorophores through a deoxycytidylic acid linker, a single fluorophore can be efficiently incorporated into a protein at the carboxyl terminus during in vitro translation. The authors confirmed that the resulting fluorescently labeled proteins are useful for probing protein-protein and protein-DNA interactions by means of pulldown assay, DNA microarrays, and FCCS in model expts. These fluorescence assay systems can be easily extended to highly parallel anal. of protein interactions in studies of functional genomics. Interactions involving c-Fos, c-Jun, and DNA were studied by labeling with rhodamine green or Cy5 using puromycin-contg. modifying agents.

IC ICM C12N015-09
ICS C07K001-13; C12P021-02

CC 9-15 (Biochemical Methods)

IT **Proteins**
RL: BSU (Biological study, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

IT Affinity chromatography
Dialysis
Gel electrophoresis
Gel permeation chromatography
Ion chromatography
Precipitation (chemical)
(modified protein purifn. by; fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

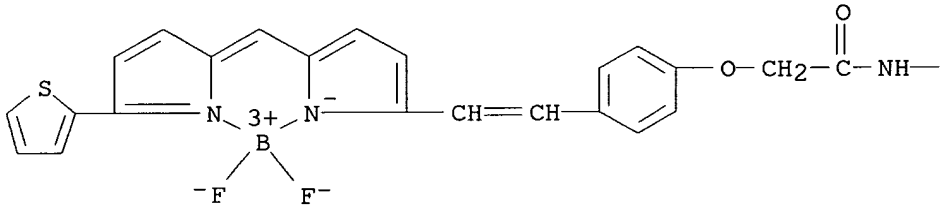
IT 53-79-2, Puromycin 436083-76-0 436083-77-1 436083-78-2 436083-79-3
436083-80-6 436083-81-7 436083-82-8 436083-83-9 436083-84-0
436083-85-1 436083-86-2 436083-87-3 436083-88-4 436083-89-5
436083-90-8 436083-91-9 436083-92-0 **436812-57-6**
436812-58-7 436845-07-7 436845-08-8 436845-09-9
436845-10-2 436845-11-3 436845-12-4 436845-13-5
RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

IT **436812-57-6 436812-58-7**
RL: MOA (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)

RN 436812-57-6 HCAPLUS

CN Borate(2-), [2'-deoxy-5'-O-[1-hydroxy-1-oxido-10,17-dioxo-18-[4-[2-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]ethenyl]phenoxy]-2-oxa-9,16-diaza-1-phosphaoctadec-1-yl]cytidylyl-(3'.fwdarw.5')-3'-[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxyadenosinato(3-)]difluoro-, dihydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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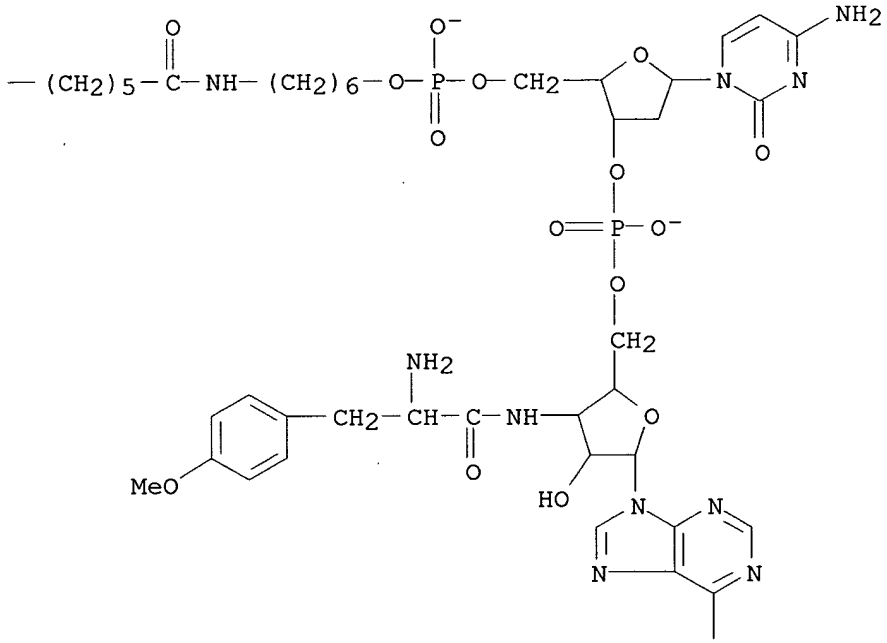

PAGE 2-A

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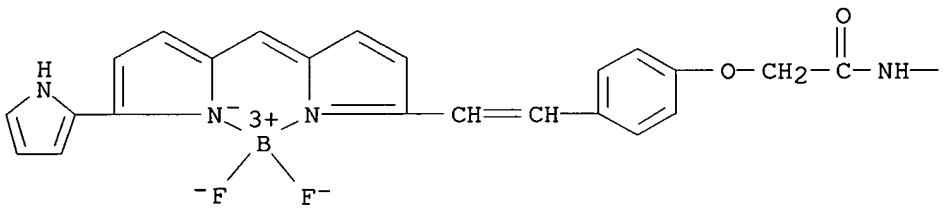
PAGE 2-B

PAGE 2-B

RN 436812-58-7 HCAPLUS
CN Borate(2-), [5'-O-[18-[4-[2-[2-[([2,2'-bi-1H-pyrrol]-5-yl-.kappa.N1)methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]-1-hydroxy-1-oxido-10,17-dioxo-2-oxa-9,16-diaza-1-phosphaoctadec-1-yl]-2'-deoxycytidylyl-(3'.fwdarw.5')-3'-[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-deoxyadenosinato(3-)]difluoro-, dihydrogen, (T-4)-(9CI) (CA INDEX NAME)

PAGE 1-A



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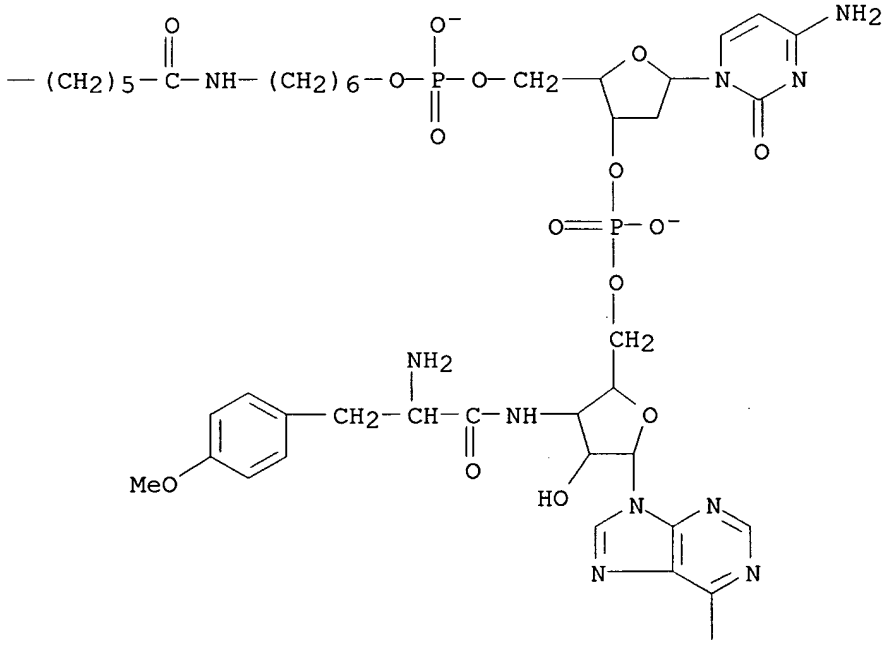

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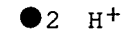


PAGE 2-B

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 28 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:429191 HCAPLUS
DOCUMENT NUMBER: 137:17450
TITLE: Methodologies and reagents for analyte determination in complex biological fluids
INVENTOR(S): Sundrehagen, Erling
PATENT ASSIGNEE(S): Norway
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044721	A1	20020606	WO 2001-NO480	20011130
WO 2002044721	C2	20020926		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002023166	A5	20020611	AU 2002-23166	20011130
EP 1346219	A1	20030924	EP 2001-998826	20011130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003077596	A1	20030424	US 2002-19866	20020807

PRIORITY APPLN. INFO.: NO 2000-6130 A 20001201
WO 2001-NO480 W 20011130

AB The invention concerns a method for detn. of one or more analytes in a test sample or an aliquot of a test sample, as well as a reagent for use in the method. The reagent according to the present invention comprises at least one type of specific binding mol. for each analyte that is to be

quantitated, as well as fluorescent substances whose signals change as a result of adding a sample to the reagent. Furthermore, the signal change may be used to calc. the concn. or concns. of analytes, without sepg. different states of aggregation.

IC ICM G01N033-53
ICS G01N033-542; G01N033-533; G01N033-68

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 6, 13

IT **Proteins**
RL: ANT (Analyte); ANST (Analytical study)
(C-reactive; methodol. and reagents for analyte detn. in complex biol. fluids)

IT Nucleic acids
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(**aptamers**; methodol. and reagents for analyte detn. in complex biol. fluids)

IT **Amino acids, uses**
Peptides, uses
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(methodol. and reagents for analyte detn. in complex biol. fluids)

IT **380367-48-6**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY 630/650X; methodol. and reagents for analyte detn. in complex biol. fluids)

IT **174881-57-3**, BODIPY R 6G
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY R 6G; methodol. and reagents for analyte detn. in complex biol. fluids)

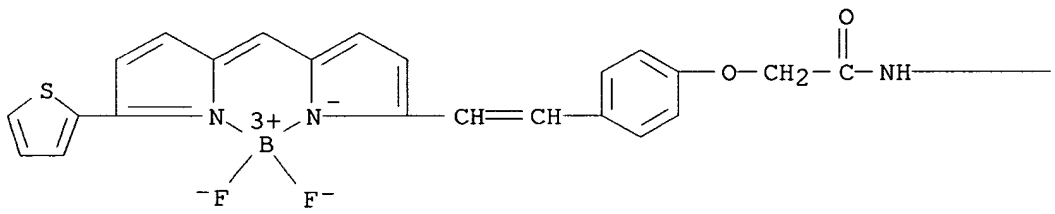
IT 81-88-9 7440-18-8D, Ruthenium, ligand complexes 7440-19-9, Samarium, uses 7440-27-9, Terbium, uses 7440-53-1, Europium, uses 70281-37-7 82354-19-6, Texas Red 146368-14-1, Cy5 **165599-63-3**, Bodipy FL **197306-80-2**, Bodipy TR-X **217190-15-3**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(methodol. and reagents for analyte detn. in complex biol. fluids)

IT **380367-48-6**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY 630/650X; methodol. and reagents for analyte detn. in complex biol. fluids)

RN 380367-48-6 HCAPLUS

CN Boron, difluoro[1-[[1-oxo-6-[[[4-[2-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]ethenyl]phenoxy]acetyl]amino]hexyl]oxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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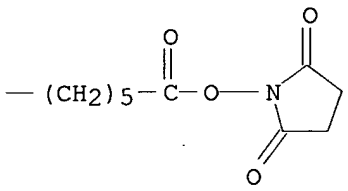
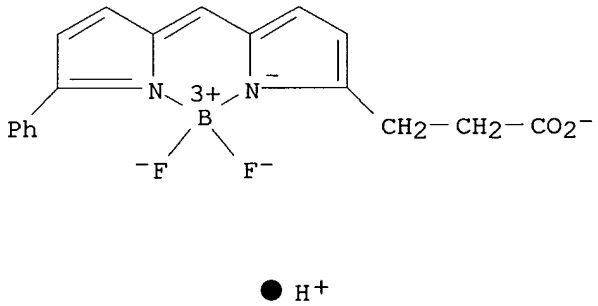
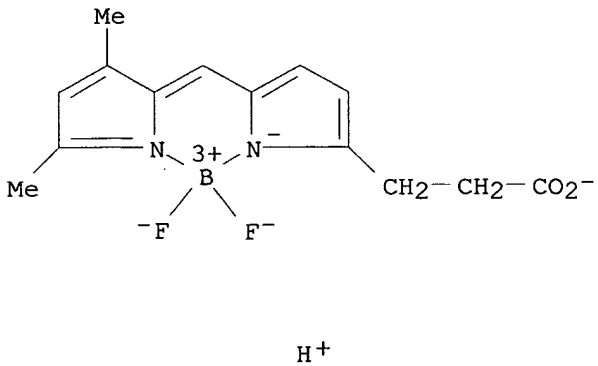
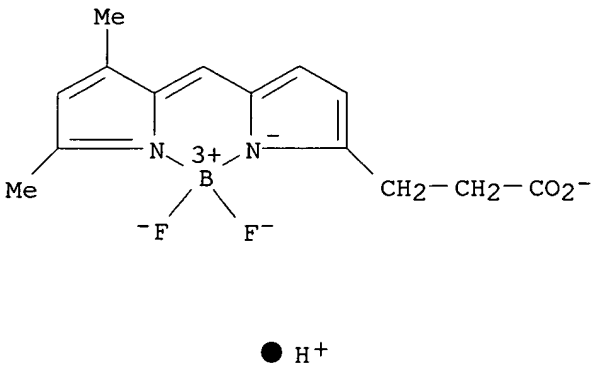


IT **174881-57-3,** BODIPY R 6G
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY R 6G; methodol. and reagents for analyte detn. in complex biol. fluids)
RN 174881-57-3 HCAPLUS
CN Borate(1-), difluoro[5-[(5-phenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



IT **165599-63-3,** Bodipy FL **197306-80-2,** Bodipy TR-X
217190-15-3
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(methodol. and reagents for analyte detn. in complex biol. fluids)
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)





RN 197306-80-2 HCAPLUS
CN Boron, [N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-2-[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]acetamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

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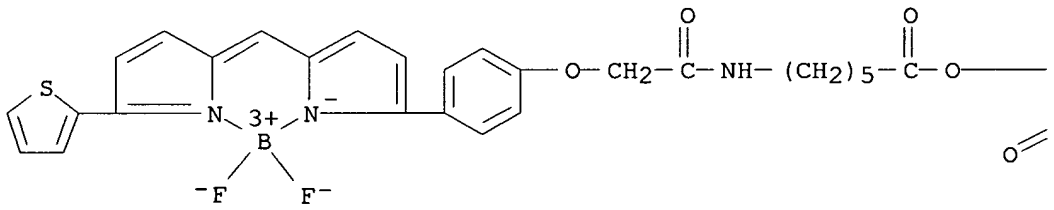

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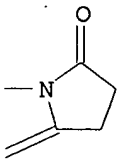

RN 217190-15-3 HCAPLUS
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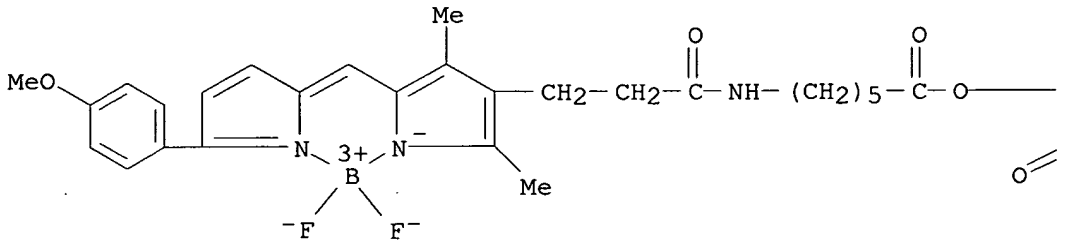
PAGE 1-A



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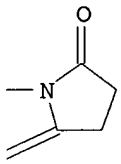


REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 29 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:391844 HCAPLUS
DOCUMENT NUMBER: 136:398125
TITLE: Gene expression miniarrays employing automated pipetters and visual pattern displays
INVENTOR(S): Shafer, David A.
PATENT ASSIGNEE(S): Genetag Technology, Inc., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002040634	A2	20020523	WO 2001-US43918	20011114
WO 2002040634	A3	20040108		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002035128	A5	20020527	AU 2002-35128	20011114
US 2002074342	A1	20020620	US 2001-992516	20011114

PRIORITY APPLN. INFO.: US 2000-248247P P 20001114
WO 2001-US43918 W 20011114

AB The present invention provides methods and devices for a new, inexpensive

miniarray suitable for gene expression anal. Mechanized large format miniarrays of low or high d. was developed due to gains in sensitivity resulted from methods of signal amplification and probe amplification disclosed herein. In contrast to the making of very small, high-d. expression microarrays which require: (1) very expensive spotters that deposit picoliter vols. per spot with delicate, miniaturized pins or inkjets; (2) special dust free and humidity conditions during manuf., and (3) high resoln. fluorescent image scanners for anal., the present invention creates simpler, less expensive mini-format arrays based on employing automated pipetters which can reliably deposit nanoliter vols. of analyte specific reagents in a known grid pattern on solid or membrane supports. The miniarray of the present invention is also designed to employ disposable pipet tips that can be ejected and replaced to avoid tip cleaning and contamination problems between loading of samples. The spotter app. of the present invention operates printing, loading, tip changing and other operations mech. or robotically in order to facilitate miniarray manuf. The devices and methods disclosed herein also provide new diagnostic miniarray configurations customized to different diseases or conditions. The arrays can be arranged or organized to form and display simple visual patterns that indicate the presence of the disease or condition. In one embodiment, the miniarray will generate a simple identifying pattern such as a stoplight pattern showing clusters of genes that are labeled red, yellow and green, indicating the predicted presence of gene activity levels that are upregulated, unchanged, or downregulated, resp., in the disease or condition under examn. In another embodiment of the present invention, the pattern will be created within the computer program governing the anal. and display of the miniarray.

IC ICM C12N

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 3

IT **Proteins**
RL: ANT (Analyte); ANST (Analytical study)
(intracellular; gene expression miniarrays employing automated pipetters and visual pattern displays)

IT **Glass**, uses
Plastics, uses
RL: DEV (Device component use); USES (Uses)
(miniarray substrate; gene expression miniarrays employing automated pipetters and visual pattern displays)

IT **Proteins**
RL: ANT (Analyte); ANST (Analytical study)
(secretory, intracellular; gene expression miniarrays employing automated pipetters and visual pattern displays)

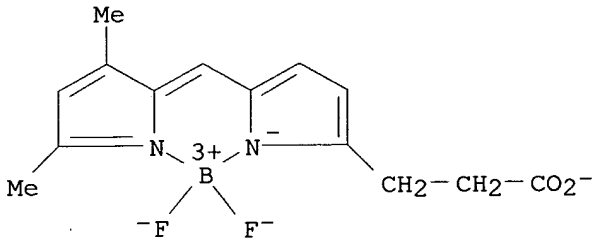
IT 1672-46-4, Digoxigenin 2321-07-5, Fluorescein 4272-77-9, Dansyl acid 70281-37-7, Tetramethylrhodamine 82354-19-6, Texas Red 82446-52-4, Lucifer yellow **165599-63-3**, BODIPY FL 215868-23-8, Marina Blue 247144-99-6, Alexa Fluor 488
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(dye; gene expression miniarrays employing automated pipetters and visual pattern displays)

IT **165599-63-3**, BODIPY FL
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(dye; gene expression miniarrays employing automated pipetters and visual pattern displays)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA

INDEX NAME)



● H^+

L27 ANSWER 30 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:370583 HCAPLUS
DOCUMENT NUMBER: 137:90421
TITLE: Simultaneous red/green dual fluorescence detection on electroblots using BODIPY TR-X succinimidyl ester and ELF 39 phosphate
AUTHOR(S): Martin, Karen; Hart, Courtenay; Schulenberg, Birte; Jones, Laurie; Patton, Wayne F.
CORPORATE SOURCE: Proteomics Section, Molecular Probes, Eugene, OR, 97402, USA
SOURCE: Proteomics (2002), 2(5), 499-512
CODEN: PROTC7; ISSN: 1615-9853
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A two-color fluorescence detection method is described based upon covalently coupling the succinimidyl ester of BODIPY TR-X dye to proteins immobilized on **polyvinylidene difluoride** membranes, followed by detection of target proteins using the fluorogenic, pptg. substrate ELF 39-phosphate in combination with alk. phosphatase conjugated reporter mols. This results in all proteins in the profile being visualized as fluorescent red signal while those detected specifically with the alk. phosphatase conjugate appear as fluorescent green signal. The dichromatic detection system is broadly compatible with UV epi- or trans-illuminators combined with photog. or charge-coupled device cameras, and xenon-arc sources equipped with appropriate excitation/emission filters. The dichromatic method permits detection of low nanogram amts. of protein and allows for unambiguous identification of target proteins relative to the entire protein profile on a single electroblot, obviating the need to run replicate gels that would otherwise require visualization of total proteins by silver staining and subsequent alignment with chemiluminescent or colorimetric signals generated on electroblots. Combining the detection approach with an Alexa Fluor 350 dye conjugated monoclonal antibody permits simultaneous fluorescence detection of two antigens and the total protein profile on the same electroblot.

CC 9-5 (Biochemical Methods)

IT **Proteins**
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); PROC (Process)
(immobilized; red/green dual fluorescence detection on electroblots using BODIPY TR-X succinimidyl ester and ELF 39 phosphate)

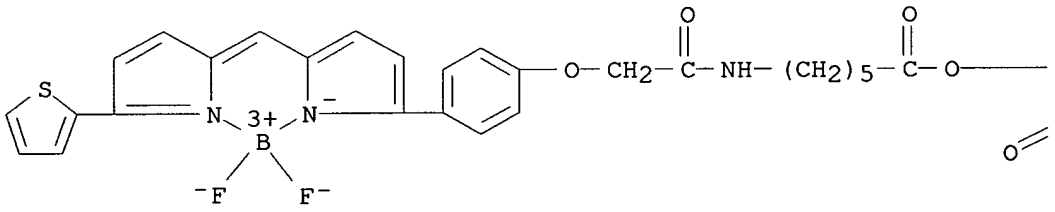
IT **197306-80-2**, BODIPY TR-X, SE
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY TR-X, SE; red/green dual fluorescence detection on electroblots using BODIPY TR-X succinimidyl ester and ELF 39 phosphate)

IT **24937-79-9, Polyvinylidene difluoride**
RL: NUU (Other use, unclassified); USES (Uses)
(red/green dual fluorescence detection on electroblots using BODIPY TR-X succinimidyl ester and ELF 39 phosphate)

IT **197306-80-2**, BODIPY TR-X, SE
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(BODIPY TR-X, SE; red/green dual fluorescence detection on electroblots using BODIPY TR-X succinimidyl ester and ELF 39 phosphate)

RN 197306-80-2 HCAPLUS
CN Boron, [N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-2-[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]acetamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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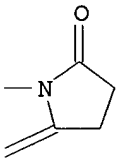
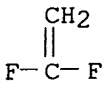


IT **24937-79-9, Polyvinylidene difluoride**
RL: NUU (Other use, unclassified); USES (Uses)
(red/green dual fluorescence detection on electroblots using BODIPY TR-X succinimidyl ester and ELF 39 phosphate)

RN 24937-79-9 HCAPLUS
CN Ethene, 1,1-difluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 75-38-7
CMF C2 H2 F2



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 31 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:354022 HCAPLUS
DOCUMENT NUMBER: 136:366139
TITLE: Labeled peptides, proteins and antibodies and processes and intermediates useful for their preparation
INVENTOR(S): Hahn, Klaus M.; Toutchkine, Alexei; Muthyala, Rajeev; Kraynov, Vadim; Bark, Steven J.; Burton, Dennis R.; Chamberlain, Chester
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of Appl. No. PCT/US2000/26821.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002055133	A1	20020509	US 2001-839577	20010420
WO 2002028890	A1	20020411	WO 2000-US26821	20000929
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2002008245	A2	20020131	WO 2001-US22194	20010713
WO 2002008245	A3	20030130		
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EP 1301473	A2	20030416	EP 2001-954689	20010713
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PRIORITY APPLN. INFO.:
US 2000-218113P A 20000713
WO 2000-US26821 A2 20000929
US 2001-279302P P 20010328
US 2001-839577 A 20010420

WO 2001-US22194 W 20010713

OTHER SOURCE(S): MARPAT 136:366139

AB The invention provides peptide synthons having protected functional groups for attachment of desired moieties (e.g. functional mols. or probes). Also provided are peptide conjugates prepd. from such synthons, and synthon and conjugate prepn. methods including procedures for identifying the optimum probe attachment site. Biosensors are provided having environmentally sensitive dyes that can locate specific biomols. within living cells and detect chem. and physiol. changes in those biomols. as the living cell is moving, metabolizing and reacting to its environment. Methods are included for detecting GTP activation of a Rho GTPase protein using polypeptide biosensors. When the biosensor binds GTP-activated Rho GTPase protein, the environmentally sensitive dye emits a signal of a different lifetime, intensity or wavelength than when not bound. New fluorophores whose fluorescence responds to environmental changes are also provided that have improved detection and attachment properties, and that can be used in living cells, or in vitro.

IC G01N033-53; G01N033-537; G01N033-543; C07D417-02; C07K014-435

NCL 435079200

CC 9-14 (Biochemical Methods)
Section cross-reference(s): 1, 7, 34, 41

IT **287384-28-5DP**, BODIPY TMR, conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(BODIPY TMR; labeled peptides and proteins and **antibodies** and processes and intermediates useful in their prepn.)

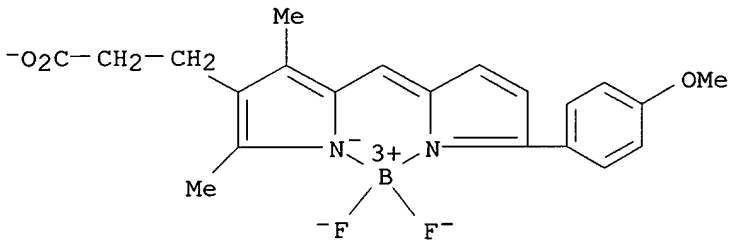
IT 65-61-2DP, Acridine Orange, conjugates 531-59-9DP, 7-Methoxycoumarin, conjugates 1239-45-8DP, Ethidium Bromide, conjugates 1461-15-0DP, Calcein, conjugates 2321-07-5DP, Fluorescein, conjugates 3520-42-1DP, Lissamine Rhodamine B, conjugates 7059-24-7DP, Chromomycin A3, conjugates 18378-89-7DP, Mithramycin, conjugates 19063-57-1DP, 7-Aminocoumarin, conjugates 23491-45-4DP, Hoechst 33258, conjugates 23491-52-3DP, Hoechst 33342, conjugates 25535-16-4DP, Propidium Iodide, conjugates 26093-31-2DP, 7-Amino-4-methylcoumarin, conjugates 43070-85-5DP, Hydroxycoumarin, conjugates 47165-04-8DP, DAPI, conjugates 70281-37-7DP, Tetramethylrhodamine, conjugates 76421-73-3DP, Monochlorobimane, conjugates 76433-29-9DP, LDS 751, conjugates 82354-19-6DP, Texas Red, conjugates 82446-52-4DP, Lucifer Yellow, conjugates 96314-96-4DP, Indo 1, conjugates 96314-98-6DP, Fura 2, conjugates 107347-53-5DP, TRITC, conjugates 123632-39-3DP, Fluo 3, conjugates 126208-12-6DP, Carboxy-SNARF-1, conjugates 143413-84-7DP, TOTO 1, conjugates 143413-85-8DP, YOYO 1, conjugates 149838-22-2DP, FM 1-43, conjugates 157199-59-2DP, TO-PRO 1, conjugates 157199-63-8DP, TO-PRO 3, conjugates **165599-63-3DP**, BODIPY-FL, conjugates 166196-17-4DP, TOTO 3, conjugates 169799-14-8DP, Cy7, phycoerythrin conjugate 194100-76-0DP, SYTOX Green, conjugates 204934-16-7DP, BODIPY TR, conjugates 237752-36-2DP, Red 613, conjugates 247145-11-5DP, Alexa-532, conjugates 324767-53-5DP, SYTOX Orange, conjugates 396076-95-2DP, TruRed, conjugates 396077-00-2DP, SYTOX Blue, conjugates 422551-33-5DP, PerCP, conjugates 422551-53-9DP, P-Phycoerythrin, conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(labeled peptides and proteins and **antibodies** and processes and intermediates useful in their prepn.)

IT **287384-28-5DP**, BODIPY TMR, conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)
(BODIPY TMR; labeled peptides and proteins and **antibodies** and processes and intermediates useful in their prepn.)

RN 287384-28-5 HCAPLUS

CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

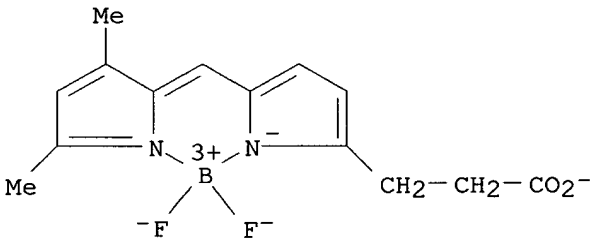


● H^{+}

IT **165599-63-3DP**, BODIPY-FL, conjugates
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(labeled peptides and proteins and **antibodies** and processes and intermediates useful in their prepn.)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^{+}

L27 ANSWER 32 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:316314 HCAPLUS
DOCUMENT NUMBER: 137:41995
TITLE: Differences in the subcellular localization of .alpha.1-adrenoceptor subtypes can affect the subtype selectivity of drugs in a study with the fluorescent

ligand BODIPY FL-prazosin
AUTHOR(S): Sugawara, Tatsuo; Hirasawa, Akira; Hashimoto, Keitaro; Tsujimoto, Gozoh
CORPORATE SOURCE: Department of Molecular, Cell Pharmacology, National Children's Medical Research Center, Tokyo, 154, Japan
SOURCE: Life Sciences (2002), 70(18), 2113-2124
CODEN: LIFSAK; ISSN: 0024-3205
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

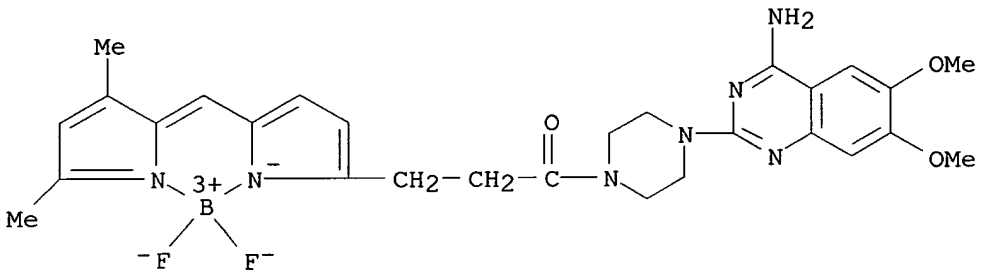
AB G protein-coupled receptor (GPCR) subtypes are differentially distributed in the cell; however, it remains unclear how this affects the subtype selectivity of particular drugs. In the present study, we used flow cytometry anal. with the fluorescent ligand, BODIPY FL-prazosin, to study the relationship between the subcellular distribution of subtype receptors and the subtype-selective character of ligands using .alpha.1a- and .alpha.1b-adrenoceptors (ARs). .alpha.1a-ARs predominantly localize inside the cell, while .alpha.1b-ARs on the cell surface. Flow cytometry anal. and confocal laser-scanning micrographs of living cells showed that BODIPY FL-prazosin can label not only .alpha.1-ARs on the cell surface, but also those localized inside the cell. Furthermore, flow cytometry anal. of .alpha.1A-AR-selective drug, KMD-3213, and .alpha.1B-AR-selective drug, CEC, revealed that the major determinant of the subtype selectivity of each drug is different. The .alpha.1A-AR selectivity of KMD-3213 can be explained by its much higher affinity for .alpha.1a-AR than .alpha.1b-AR (affinity-dependent selectivity), while the .alpha.1B-AR selectivity of the hydrophilic alkylating agent CEC is due to preferential inactivation of .alpha.1-ARs on the cell surface (receptor localization-dependent selectivity). This study illustrates that factors in addn. to the affinity of the drug for the receptor, such as subcellular localization of the receptor, should be taken into account in assessing the subtype selectivity of a drug.

CC 2-8 (Mammalian Hormones)
Section cross-reference(s): 1

IT **175799-93-6**, BODIPY FL-prazosin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.alpha.1-adrenoceptor subtype differential subcellular localization and drug subtype selectivity in study with fluorescent **ligand** BODIPY FL-prazosin)

IT **175799-93-6**, BODIPY FL-prazosin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.alpha.1-adrenoceptor subtype differential subcellular localization and drug subtype selectivity in study with fluorescent **ligand** BODIPY FL-prazosin)

RN 175799-93-6 HCAPLUS
CN Boron, [1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]piperazinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 33 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:293894 HCAPLUS
DOCUMENT NUMBER: 136:320313
TITLE: High throughput or capillary-based screening of libraries of compounds for biological activities
INVENTOR(S): Short, Jay M.; Keller, Martin; Lafferty, William Michael
PATENT ASSIGNEE(S): Diversa Corporation, USA
SOURCE: PCT Int. Appl., 229 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 40
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002031203	A2	20020418	WO 2001-US31806	20011010
WO 2002031203	C2	20030703		
WO 2002031203	A3	20030925		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 756201	B2	20030109	AU 2000-48933	20000731
AU 2000048933	A5	20001005		
US 2001041333	A1	20011115	US 2000-738871	20001215
US 2002048809	A1	20020425	US 2001-790321	20010221
US 2002086279	A1	20020704	US 2001-875412	20010606
US 6677115	B2	20040113		
US 2002015997	A1	20020207	US 2001-894956	20010627
AU 2002011642	A5	20020422	AU 2002-11642	20011010
EP 1364052	A2	20031126	EP 2001-979708	20011010
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-685432 A2 20001010
US 2000-738871 A2 20001215

US 2001-790321	A2	20010221
US 2001-894956	A2	20010627
US 2001-309101P	P	20010731
AU 1997-11489	A3	19961206
US 1997-876276	A2	19970616
US 1997-988224	A1	19971210
US 1998-98206	A2	19980616
US 1999-444112	A2	19991122
US 2000-636778	A2	20000811
US 2000-687219	A2	20001012
WO 2001-US31806	W	20011010

AB Provided is a method of screening or enriching a sample contg. polynucleotides from a mixed population of organisms. The method includes creating a DNA library from a plurality of nucleic acid sequences of a mixed population of organisms and sepg. clones contg. a polynucleotide sequence of interest on an analyzer detects a detectable mol. on a probe or bioactive substrate. Individual members of the library can be sepd. and analyzed using an ordered array of fine capillaries that can be used to take up individual members of the library. The capillary array may contain up to 1 million members. Methods of analyzing biol. activities, such as enzyme assays or reporter gene expression, are described. The analyzer includes FACS devices, SQUID devices and MSC devices. The sepd. or enrich library can then be further process by activity based screening or sequence based screening. In addn., the enriched sequence can be compared to a database and to identify sequences in the database which have homol. to a clone in the library thereby obtaining a nucleic acid profile of the mixed population of organisms.

IC ICM C12Q001-68

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 7

IT **Glass,** uses
RL: DEV (Device component use); USES (Uses)
(Extra mural absorption (EMA); high throughput or capillary-based screening of libraries of compds. for biol. activities)

IT **Proteins**
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(green fluorescent, as reporter and label; high throughput or capillary-based screening of libraries of compds. for biol. activities)

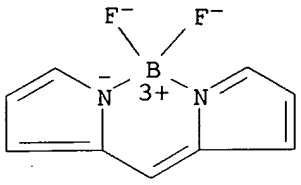
IT **Glass,** uses
RL: DEV (Device component use); USES (Uses)
(high throughput or capillary-based screening of libraries of compds. for biol. activities)

IT 81-88-9D, derivs. 91-64-5D, Coumarin, derivs. 92-83-1D, Xanthene, derivs. 260-94-6D, Acridine, derivs. 635-78-9D, Resorufin, derivs. 2321-07-5D, Fluorescein, derivs. **138026-71-8D,** Bodipy, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as fluorophores; high throughput or capillary-based screening of libraries of compds. for biol. activities)

IT **138026-71-8D,** Bodipy, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as fluorophores; high throughput or capillary-based screening of libraries of compds. for biol. activities)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



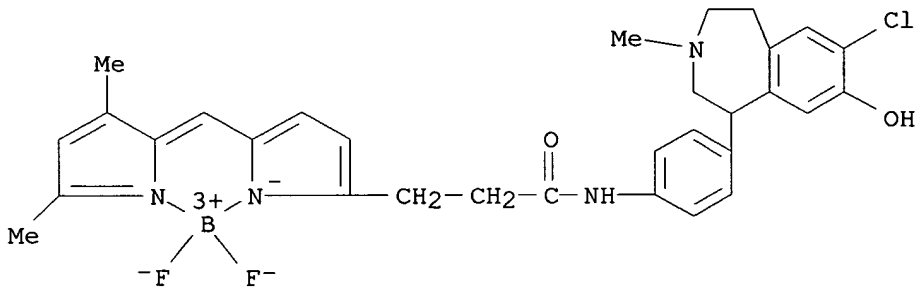
L27 ANSWER 34 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:123543 HCAPLUS
DOCUMENT NUMBER: 136:163683
TITLE: Arrays of biological membranes and methods and use thereof
INVENTOR(S): Lahiri, Joydeep; Fang, Ye; Jonas, Steven J.; Kalal, Peter J.; Wang, Wei
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002019015	A1	20020214	US 2001-854786	20010514
US 2002094544	A1	20020718	US 2001-974415	20011009
WO 2002092833	A2	20021121	WO 2002-US11332	20020403
WO 2002092833	A3	20031009		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1388010	A2	20040211	EP 2002-728731	20020403
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003138853	A1	20030724	US 2003-341215	20030113

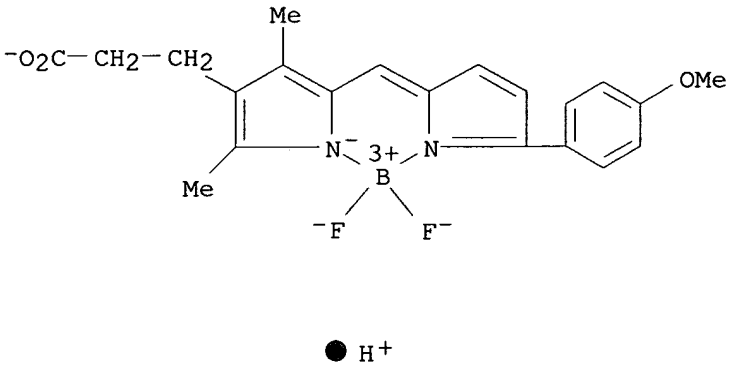
PRIORITY APPLN. INFO.:
US 2000-224135P P 20000810
US 2001-854786 A2 20010514
US 2001-974415 A 20011009
WO 2002-US11332 W 20020403

AB The present invention overcomes the problems and disadvantages assocd. with prior art arrays by providing an array comprising a plurality of biol. membrane microspots assocd. with a surface of a substrate that can be produced, used and stored, not in an aq. environment, but in an environment exposed to air under ambient or controlled humidities. Preferably, the biol. membrane microspots comprise a membrane bound protein. Most preferably, the membrane bound protein is a G-protein coupled receptor, an ion channel or a receptor tyrosine kinase.

IC ICM G01N033-53
ICS G01N033-542; C12M001-34
NCL 435007900
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 7
IT Acid halides
Esters, uses
Glass, uses
Metals, uses
Phosphatidylcholines, uses
Plastics, uses
Polymers, uses
Silanes
Thiols (organic), uses
RL: DEV (Device component use); USES (Uses)
(arrays of biol. membranes and methods and use thereof)
IT **Proteins**
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(membrane; arrays of biol. membranes and methods and use thereof)
IT 39379-15-2, Neurotensin 39379-15-2D, Neurotensin, conjugates with BODIPY TMR 81047-99-6D, CGP 12177, conjugates with BODIPY TMR **228265-94-9**, BODIPY-FL-SCH 23390 **287384-28-5D**, BODIPY-TMR, conjugates with neurotensin and CGP 12177
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(arrays of biol. membranes and methods and use thereof)
IT **228265-94-9**, BODIPY-FL-SCH 23390 **287384-28-5D**, BODIPY-TMR, conjugates with neurotensin and CGP 12177
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(arrays of biol. membranes and methods and use thereof)
RN 228265-94-9 HCAPLUS
CN Boron, [N-[4-[(1R)-7-chloro-2,3,4,5-tetrahydro-8-hydroxy-3-methyl-1H-3-benzazepin-1-yl]phenyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)



RN 287384-28-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 35 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:90063 HCAPLUS
DOCUMENT NUMBER: 136:163716
TITLE: Labeled peptides, proteins and antibodies and processes and intermediates useful for their preparation
INVENTOR(S): Hahn, Klaus M.; Toutchkine, Alexei; Muthyala, Rajeev; Kraynov, Vadim; Bark, Steven J.; Burton, Dennis R.; Chamberlain, Chester
PATENT ASSIGNEE(S): The Scripps Research Institute, USA
SOURCE: PCT Int. Appl., 158 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002008245	A2	20020131	WO 2001-US22194	20010713
WO 2002008245	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2002028890	A1	20020411	WO 2000-US26821	20000929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002055133	A1	20020509	US 2001-839577	20010420

EP 1301473 A2 20030416 EP 2001-954689 20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 2000-218113P P 20000713
WO 2000-US26821 W 20000929
US 2001-279302P P 20010328
US 2001-839577 A 20010420
WO 2001-US22194 W 20010713
OTHER SOURCE(S): MARPAT 136:163716

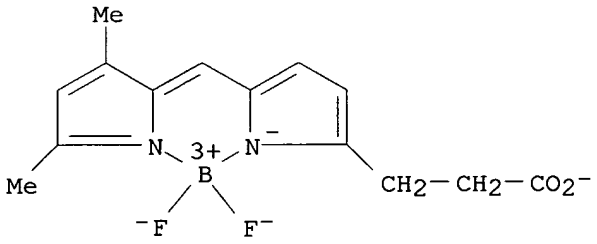
AB The invention provides peptide synthons having protected functional groups for attachment of desired moieties (e.g. functional mols. or probes). Also provided are peptide conjugates prepd. from such synthons, and synthon and conjugate prepn. methods including procedures for identifying optimum probe attachment sites. Biosensors are provided having functional mols. that can locate and bind to specific biomols. within living cells. Biosensors can detect chem. and physiol. changes in those biomols. as living cells are moving, metabolizing and reacting to its environment. Methods are included for detecting GTP activation of a Rho GTPase protein using polypeptide biosensors. When the biosensor binds GTP-activated Rho GTPase protein, an environmentally sensitive dye emits a signal of a different lifetime, intensity or wavelength than when not bound. New fluorophores whose fluorescence responds to environmental changes are also provided that have improved detection and attachment properties, and that can be used in living cells, or in vitro.

IC ICM C07K001-00
CC 9-14 (Biochemical Methods)
Section cross-reference(s): 7, 15, 34, 41
IT 65-61-2DP, Acridine Orange, conjugates with peptides 1239-45-8DP, Ethidium Bromide, conjugates with peptides 1325-87-7DP, Cascade Blue, conjugates with peptides 1461-15-0DP, Calcein, conjugates with peptides 2321-07-5DP, Fluorescein, conjugates with peptides 2768-89-0DP, Rhodamine X, conjugates with peptides 3520-42-1DP, Lissamine Rhodamine B, conjugates with peptides 7059-24-7DP, Chromomycin A3, conjugates with peptides 7240-37-1DP, 7-AAD, conjugates with peptides 10199-91-4DP, NBD, conjugates with peptides 18378-89-7DP, Mithramycin, conjugates with peptides 23491-45-4DP, Hoechst 33258, conjugates with peptides 23491-52-3DP, Hoechst 33342, conjugates with peptides 25535-16-4DP, Propidium Iodide, conjugates with peptides 30230-57-0DP, conjugates with peptides 41085-99-8DP, conjugates with peptides 43070-85-5DP, Hydroxycoumarin, conjugates with peptides 47165-04-8DP, DAPI, conjugates with peptides 51908-46-4DP, Dansyl aziridine, conjugates with peptides 70281-37-7DP, Tetramethylrhodamine, conjugates with peptides 76421-73-3DP, Monochlorobimane, conjugates with peptides 76433-29-9DP, LDS 751, conjugates with peptides 82354-19-6DP, Texas Red, conjugates with peptides 82446-52-4DP, Lucifer Yellow, conjugates with peptides 96314-96-4DP, Indo-1, conjugates with peptides 96314-98-6DP, Fura-2, conjugates with peptides 107091-89-4DP, Thiazole Orange, conjugates with peptides 107347-53-5DP, TRITC, conjugates with peptides 112117-57-4DP, conjugates with peptides 123632-39-3DP, Fluo-3, conjugates with peptides 126208-12-6DP, Carboxy-SNARF-1, conjugates with peptides 143245-02-7DP, conjugates with peptides 143413-84-7DP, TOTO-1, conjugates with peptides 143413-85-8DP, YOYO-1, conjugates with peptides 146368-15-2DP, Cy5, conjugates with peptides 146368-16-3DP, Cy3, conjugates with peptides 149838-22-2DP, FM 1-43, conjugates with peptides 153967-04-5DP, SNARF, conjugates with peptides 157199-59-2DP, TO-PRO-1, conjugates with peptides 157199-63-8DP, TO-PRO-3, conjugates with peptides **165599-63-3DP**, BODIPY-FL, conjugates with peptides

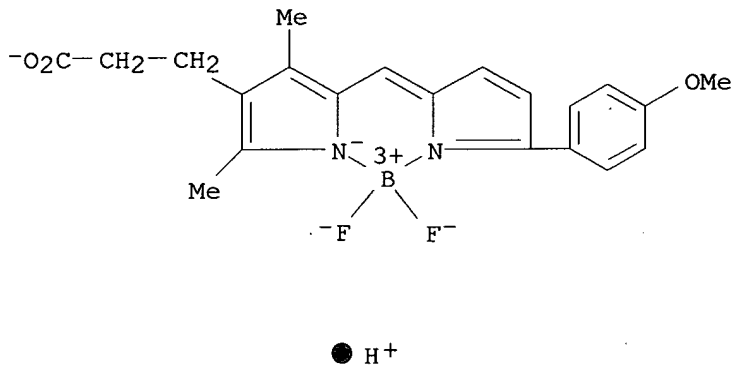
166196-17-4DP, TOTO-3, conjugates with peptides 169799-14-8DP, Cy7, conjugates with peptides 194100-76-0DP, SYTOX Green, conjugates with peptides 204934-16-7DP, BODIPY TR, conjugates with peptides 237752-36-2DP, Red 613, conjugates with peptides 247145-11-5DP, Alexa-532, conjugates with peptides **287384-28-5DP**, BODIPY TMR, conjugates with peptides 324767-53-5DP, SYTOX Orange, conjugates with peptides 396076-95-2DP, TruRed, conjugates with peptides 396077-00-2DP, SYTOX Blue, conjugates with peptides
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(labeled peptides, proteins and **antibodies** and processes and intermediates useful for prepn.)

IT **165599-63-3DP**, BODIPY-FL, conjugates with peptides
287384-28-5DP, BODIPY TMR, conjugates with peptides
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(labeled peptides, proteins and **antibodies** and processes and intermediates useful for prepn.)

RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



RN 287384-28-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-2,4-dimethyl-1H-pyrrole-3-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 36 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:30612 HCAPLUS
DOCUMENT NUMBER: 136:227044
TITLE: Internalization and trafficking of opioid receptor ligands in rat cortical neurons
AUTHOR(S): Lee, Mao-Cheng; Cahill, Catherine M.; Vincent, Jean-Pierre; Beaudet, Alain
CORPORATE SOURCE: Department of Neurology and Neurosurgery, Montreal Neurological Institute, Montreal, QC, H3A 2B4, Can.
SOURCE: Synapse (New York, NY, United States) (2001), Volume Date 2002, 43(2), 102-111
CODEN: SYNAET; ISSN: 0887-4476
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The binding, internalization, and trafficking of the fluorescently labeled opioid peptides Fluo-dermorphin and Fluo-deltorphin were quant. studied by confocal microscopy in primary cortical neurons in culture. Specific binding of these selective ligands to neurons naturally expressing .mu.- and .delta.-opioid receptors (OR), resp., resulted in their internalization into neuronal somas and processes, as indicated by the persistence of fluorescent labeling following removal of cell surface binding by hypertonic acid wash. This internalization was receptor-specific, as the fluorescent signal was completely abolished when the cells were concomitantly incubated with the opioid receptor antagonist naloxone. It also was clathrin-dependent, as it was totally prevented by the endocytosis inhibitor phenylarsine oxide. Accordingly, internalized ligands were detected inside small, endosome-like vesicles. These labeled vesicles accumulated within nerve cell bodies between 5-30 min of incubation with the fluorescent ligands. This accumulation was abolished after treatment with the antitubular agent nocodazole, suggesting that it was due to a microtubule-dependent, retrograde transport of the internalized ligands from processes to the soma. By contrast, there was no change in the compartmentalization of internalized .mu.OR or .delta.OR, as assessed by immunocytochem., suggesting that the latter were recycled locally. The present results provide the first demonstration of receptor-mediated internalization of opioid peptides in cultured neurons. It is proposed that their retrograde transport into target cells might be involved in mediating some of the long-term, transcriptional effects of opioids.

CC 2-5 (Mammalian Hormones)

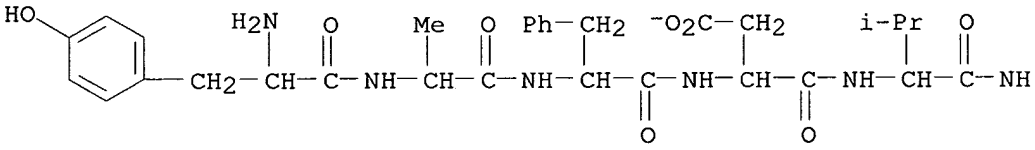
IT 77614-16-5, Dermorphin 119975-64-3, Deltorphin A **187613-15-6** **202075-16-9**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(opioid receptor **ligand** internalization and trafficking in rat cortical neurons)

IT **187613-15-6 202075-16-9**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(opioid receptor **ligand** internalization and trafficking in rat cortical neurons)

RN 187613-15-6 HCAPLUS

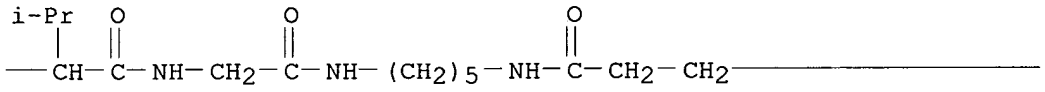
CN Borate(1-), difluoro[7-[N-[5-[[1-oxo-3-[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propyl]amino]pentyl]glycinamide]deltorphin C-ato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



● H^+

PAGE 1-B



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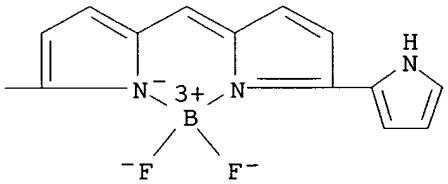
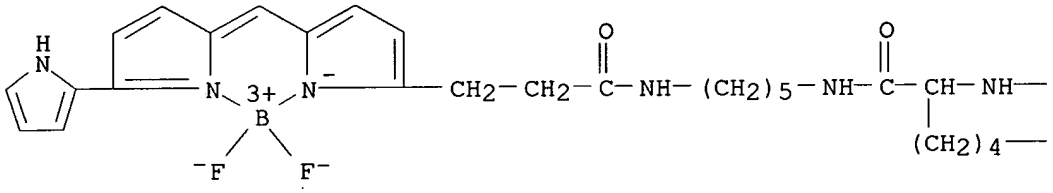


RN 202075-16-9 HCAPLUS

CN Boron, difluoro[7-[N-[5-[[1-oxo-3-[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propyl]amino]pentyl]-L-lysinamide]dermorphinato]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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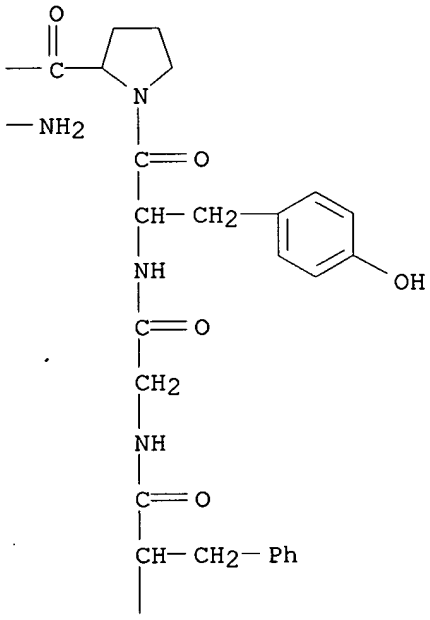
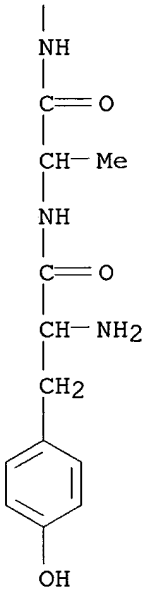




REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 37 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:785268 HCAPLUS
DOCUMENT NUMBER: 137:30106
TITLE: Validation of flow cytometric competitive binding protocols and characterization of fluorescently labeled ligands
AUTHOR(S): Waller, Anna; Pipkorn, David; Sutton, Karyn L.; Linderman, Jennifer J.; Omann, Geneva M.
CORPORATE SOURCE: Department of Chemical Engineering, University of Michigan, Ann Arbor, MI, USA
SOURCE: Cytometry (2001), 45(2), 102-114
CODEN: CYTODQ; ISSN: 0196-4763
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Fluorescently labeled ligands and flow cytometric methods allow quantification of receptor-ligand binding. Such methods require calibration of the fluorescence of bound ligands. Moreover, binding of unlabeled ligands can be calcd. based on their abilities to compete with a labeled ligand. In this study, calibration parameters were detd. for six fluorescently labeled N-formyl peptides that bind to receptors on neutrophils. Two of these ligands were then used to develop and validate competitive binding protocols for detg. binding consts. of unlabeled ligands. Spectrofluorometric and flow cytometric methods for converting relative flow cytometric intensities to no. of bound ligand/cell were extended to include peptides labeled with fluorescein, Bodipy, and tetramethylrhodamine. The validity of flow cytometric competitive binding protocols was tested using two ligands with different fluorescent properties that allowed detn. of rate consts. both directly and competitively for one ligand, CHO-NLFNYK-tetramethylrhodamine.

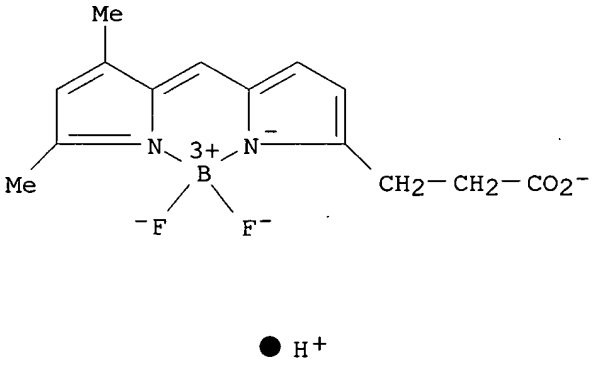
Calibration parameters were detd. for six fluorescently-labeled N-formyl peptides. Equil. dissocn. consts. for these ligands varied over two orders of magnitude and depended upon the peptide sequence and the mol. structure of the fluorescent tag. Kinetic rate consts. for CHO-NLFNYK-tetramethylrhodamine detd. directly or in competition with CHO-NLFNYK-fluorescein were statistically identical. Combination of spectrofluorometric and flow cytometric methods allows convenient calcn. of calibration parameters for a series of fluorescent ligands that bind to the same receptor site. Competitive binding protocols have been independently validated.

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 13

IT 3326-32-7 70281-37-7, Tetramethylrhodamine 145781-79-9 145781-80-2 145814-29-5 **165599-63-3 223754-98-1** 436859-81-3 438052-63-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(validation of flow cytometric competitive binding protocols and characterization of fluorescently labeled **ligands**)

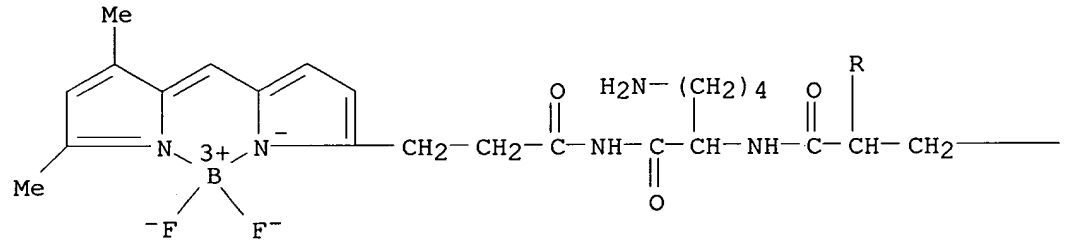
IT **165599-63-3 223754-98-1**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(validation of flow cytometric competitive binding protocols and characterization of fluorescently labeled **ligands**)

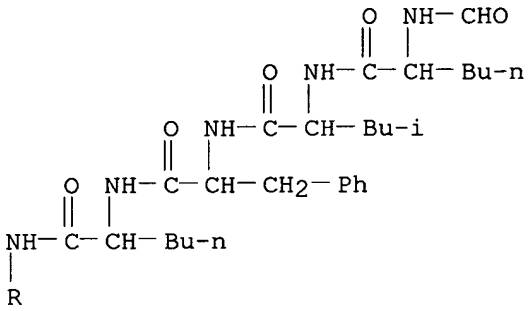
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



RN 223754-98-1 HCAPLUS
CN Boron, difluoro[N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-N-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]-L-lysinamidato(1-)]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A





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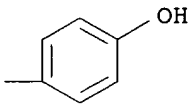


REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 38 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:728590 HCAPLUS
DOCUMENT NUMBER: 136:321593
TITLE: The use of derivatized magnetoliposomes for extraction of antibodies from aqueous solutions
AUTHOR(S): Dumitrascu, Gabriela; Kumbhar, Amar; Zhou, Weilie; Rosenzweig, Zeev
CORPORATE SOURCE: Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
SOURCE: IEEE Transactions on Magnetics (2001), 37(4, Pt. 1), 2932-2934
CODEN: IEMGAQ; ISSN: 0018-9464
PUBLISHER: Institute of Electrical and Electronics Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The paper describes the synthesis of magnetoliposomes derivatized with fluorescent ligands and their use for the detection and extn. of

antibodies from aq. solns. The magnetoliposomes contain cobalt platinum alloy nanoparticles that were annealed prior to encapsulation in the liposomes. TEM images and SQUID magnetometry measurements show that the annealing process improves their room temp. magnetic properties. To demonstrate their extn. power, magnetoliposomes labeled with BODIPY-Fluorescein were used to ext. antibodies against BODIPY-Fluorescein from aq. soln.

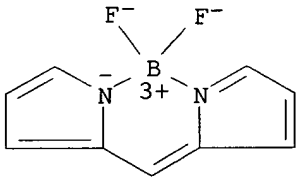
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 15

IT 2321-07-5, Fluorescein **138026-71-8**, BODIPY
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(use of derivatized magnetoliposomes for extn. of **antibodies** from aq. solns.)

IT **138026-71-8**, BODIPY
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(use of derivatized magnetoliposomes for extn. of **antibodies** from aq. solns.)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 39 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:713652 HCAPLUS
DOCUMENT NUMBER: 135:271869
TITLE: Methods and reagents for regulation of cellular responses in biological systems
INVENTOR(S): Kiessling, Laura L.; Strong, Laura E.; Gestwicki, Jason E.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001071309	A2	20010927	WO 2001-US9174	20010321
WO 2001071309	A3	20030515		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001081499	A5	20011003	AU 2001-81499	20010321
US 2003125262	A1	20030703	US 2001-815296	20010321
EP 1334118	A2	20030813	EP 2001-959934	20010321

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:	US 2000-191014P	P	20000321
	WO 2001-US9174	W	20010321

AB This invention provides multivalent ligands which carry or display at least one recognition element (RE), and preferably a plurality of recognition elements, for binding directly or indirectly to cells or other biol. particles or more generally by binding to any biol. mol. The multivalent ligands provided can most generally function for binding or targeting to any biol. particle or mol. and particularly to targeting of cells or cell types or viruses, for cell aggregation and generally for macromol. assembly of biol. macromoleculares. The multivalent ligands of this invention are generally applicable for creating scaffolds (assemblies) of chem. or biol. species, including without limitation, antigens, epitopes, ligand binding groups, ligands for cell receptors (cell surface receptors, transmembrane receptors and cytoplasmic receptors), various macromols. (nucleic acids, carbohydrates, saccharides, proteins, peptides, etc.). In these scaffolds, the no., spacing, relative positioning and relative orientation of recognition elements can be controlled. Multivalent ligands of this invention can carry or display at least one signal recognition element (SRE), and preferably a plurality of signal recognition elements, and modulate biol. responses in biol. systems. The invention also relates to methods for aggregating biol. particles and macromols. and for modulating biol. response employing the multivalent ligands provided.

IC ICM G01N

CC 15-1 (Immunochemistry)
Section cross-reference(s): 2, 3, 9

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(SU (surface); methods and reagents for regulation of cellular responses in biol. systems)

IT **Amino acids, biological studies**
Antigens
Carbohydrates, biological studies
Cytokines
Disaccharides
Glycoproteins, general, biological studies
Growth factors, animal
Haptens
Hormones, animal, biological studies
Monosaccharides
Nucleic acids
Peptides, biological studies
Proteins, general, biological studies
Receptors
RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(methods and reagents for regulation of cellular responses in biol. systems)

IT **Polyamides, biological studies**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(amino acids); methods and reagents for regulation of cellular responses in biol. systems)

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(transmembrane, receptor; methods and reagents for regulation of cellular responses in biol. systems)

IT **9003-05-8** 25087-26-7D, polymethacrylic acid, derivs. 59880-97-6 64364-50-7 **186961-29-5D**, reaction products with galactose-contg. ROMP scaffold backbones 316375-27-6 316375-27-6D, polymers, reaction products with Grubb's ruthenium catalyst 316375-29-8 316375-29-8D, polymers, reaction products with Grubb's ruthenium catalyst 362663-18-1 362663-18-1D, polymers, reaction products with Grubb's ruthenium catalyst 362663-19-2 362663-20-5
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and reagents for regulation of cellular responses in biol. systems)

IT **9003-05-8 186961-29-5D**, reaction products with galactose-contg. ROMP scaffold backbones
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and reagents for regulation of cellular responses in biol. systems)

RN 9003-05-8 HCAPLUS
CN 2-Propenamide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1
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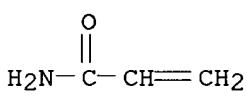
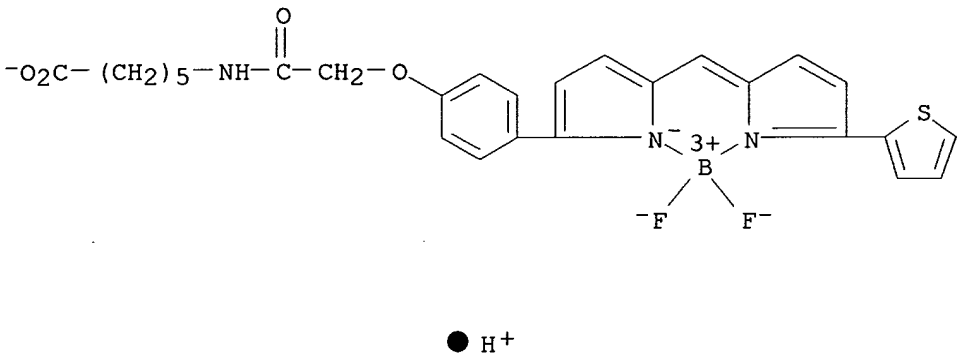


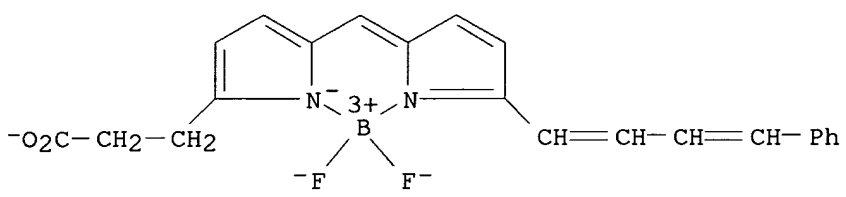
RN 186961-29-5 HCAPLUS
CN Borate(1-), difluoro[6-[[[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]acetyl]amino]hexanoato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 40 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:609351 HCAPLUS
DOCUMENT NUMBER: 136:2407
TITLE: Rapid assay for avidin and biotin based on fluorescence quenching
AUTHOR(S): Song, X.; Swanson, B. I.
CORPORATE SOURCE: Los Alamos National Laboratory, Bioscience Division, Los Alamos, NM, 87545, USA
SOURCE: Analytica Chimica Acta (2001), 442(1), 79-87
CODEN: ACACAM; ISSN: 0003-2670
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Biotin was covalently tagged with a BODIPY dye which can undergo an efficient distance-dependent fluorescence self-quenching. Multivalent binding of avidin with the BODIPY-labeled biotin (B581/591-biotin, either in aq. buffer, or anchored on the surfaces of lipid vesicles or lipid bilayers coated on glass beads) induces aggregation of the BODIPY dye (up to four dyes for each avidin) to result in a decrease in fluorescence intensity due to fluorescence self-quenching. The system can be used to perform a rapid, direct assay for avidin and competitive assay for biotin with high sensitivity (<50 pM for avidin and <0.2 nM for biotin) and selectivity. The assay method is generally applicable for detection of all the species involved in a multivalent binding interaction.

CC 9-5 (Biochemical Methods)
IT **150152-69-5**, Bodipy581/591
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(rapid assay for **avidin** and **biotin** based on fluorescence quenching using)
IT **150152-69-5**, Bodipy581/591
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(rapid assay for **avidin** and **biotin** based on fluorescence quenching using)
RN 150152-69-5 HCAPLUS
CN Borate(1-), difluoro[5-[[5-[(1E,3E)-4-phenyl-1,3-butadienyl]-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 41 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:417196 HCAPLUS
DOCUMENT NUMBER: 135:41761
TITLE: Genotyping methods for determining single nucleotide variations and its diagnostic application
INVENTOR(S): Miller, Andrew P.
PATENT ASSIGNEE(S): DNA Sciences, Inc., USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001040520	A1	20010607	WO 2000-US32735	20001201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6458544	B1	20021001	US 2000-728451	20001201
EP 1250452	A1	20021023	EP 2000-982341	20001201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003517309	T2	20030527	JP 2001-542583	20001201

PRIORITY APPLN. INFO.: US 1999-168580P P 19991202
WO 2000-US32735 W 20001201

AB The present invention provides methods and kits for detg. the identity of a nucleotide at a variant site on a target nucleic acid. The methods begin with the template-dependent amplification of a target sequence under defined conditions to achieve selective incorporation of a nucleotide analog at the variant site. Amplification product is then subjected to limited degrdn. to create products having allele-specific sizes, which are subsequently sepd. on the basis of size. Finally, the no. of products and their sizes is to assessed to det. the identity of the nucleotide(s) at

the variant site and the genotype of the organism from which the target was obtained. The present invention is exemplified by detecting an A/G polymorphism wherein the PCR extension reaction is conducted using the nucleotide deriv. (.alpha.-SdATP) and the std. nucleotides dTTP, dCTP and GTP.

IC ICM C12Q001-68
ICS C12N015-00; C12P019-34; C07H021-04

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 14

IT **Proteins, specific or class**
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cholesterol ester-exchanging, gene for; genotyping methods for detg. single nucleotide variations and its diagnostic application)

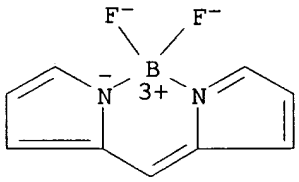
IT **Gel electrophoresis**
Human immunodeficiency virus
Nucleic acid hybridization
(gene for reverse transcriptase; genotyping methods for detg. single nucleotide variations and its diagnostic application)

IT 81-88-9D, derivs. 989-38-8D, derivs. 2321-07-5D, Fluorescein, derivs. 13558-31-1D, derivs. 25168-10-9D, Naphthylamine, derivs. 29220-54-0 120718-39-0D, ROX, derivs. 120718-52-7D, TAMRA, derivs. **138026-71-8D**, Bodipy, derivs. 192230-82-3D, TET (dye), derivs.
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(genotyping methods for detg. single nucleotide variations and its diagnostic application)

IT **138026-71-8D**, Bodipy, derivs.
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(genotyping methods for detg. single nucleotide variations and its diagnostic application)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 42 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:284409 HCAPLUS
DOCUMENT NUMBER: 135:58062
TITLE: Green/red dual fluorescence detection of total protein and alkaline phosphate-conjugated probes on blotting membranes
AUTHOR(S): Pretty, Karen; Hatleberg, Gayle; Berggren, Kiera N.; Ryan, Diane; Kemper, Courtenay; Haugland, Rosaria P.; Patton, Wayne F.
CORPORATE SOURCE: Proteomics and Bioconjugates Sections, Molecular

Probes, Inc., Eugene, OR, 97402, USA
SOURCE: Electrophoresis (2001), 22(5), 896-905
CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A two-color fluorescence detection method is described based upon covalently coupling the succinimidyl ester of BODIPY FL-X to proteins immobilized on poly(vinylidene difluoride) (**PVDF**) membranes, followed by detection of target proteins using the fluorogenic substrate 9H-(1,3-dichloro-9,9-dimethylacridin-2-one-7-yl(DDAO)-phosphate in combination with alk.-phosphatase-conjugated reporter mols. This results in all proteins in the profile being visualized as green signal while those detected specifically with the alk.-phosphatase conjugate appear as red signal. The dichromatic detection system is broadly compatible with a wide range of anal. imaging devices including UV epi- or transilluminators combined with photog. or charge-coupled device (CCD) cameras, xenon-arc sources equipped with appropriate excitation/emission filters, and dual laser gel scanners outfitted with a 473 nm second-harmonic generation or 488 nm argon-ion laser as well as a 633 nm helium-neon or 635 nm diode laser. The dichromatic detection method permits detection of low nanogram amts. of protein and allows for unambiguous identification of target proteins relative to the entire protein profile on a single electroblot, obviating the need to run replicate gels that would otherwise require visualization of total proteins by silver staining and subsequent alignment with chemiluminescent or colorimetric signals generated on electroblots.

CC 9-10 (Biochemical Methods)

IT **Proteins, general, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(reaction products with succinimidyl ester of BODIPY; green/red dual fluorescence detection of total protein and alk. phosphate-conjugated probes on blotting membranes)

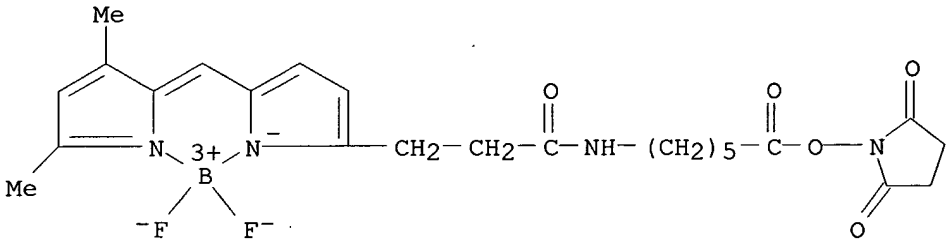
IT **217190-09-5D**, reaction products with protein
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process); USES (Uses)
(green/red dual fluorescence detection of total protein and alk. phosphate-conjugated probes on blotting membranes)

IT **24937-79-9**, Poly(vinylidene difluoride)
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(green/red dual fluorescence detection of total protein and alk. phosphate-conjugated probes on blotting membranes)

IT **217190-09-5D**, reaction products with protein
RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process); USES (Uses)
(green/red dual fluorescence detection of total protein and alk. phosphate-conjugated probes on blotting membranes)

RN 217190-09-5 HCAPLUS

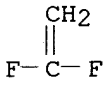
CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IT **24937-79-9**, Poly(vinylidene difluoride)
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(green/red dual fluorescence detection of total protein and alk. phosphate-conjugated probes on blotting membranes)
RN 24937-79-9 HCAPLUS
CN Ethene, 1,1-difluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 75-38-7
CMF C2 H2 F2



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 43 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:284222 HCAPLUS
DOCUMENT NUMBER: 134:307611
TITLE: Conjugated polymer tag complexes and their preparation and use in assays
INVENTOR(S): Leif, Robert C.; Franson, Richard C.; Vallarino, Lidia
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001027625	A1	20010419	WO 2000-US27787	20001007
W: CA, CH, DE, FI, GB, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1221052	A1	20020710	EP 2000-968871	20001007
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.: US 1999-158718P P 19991008
WO 2000-US27787 W 20001007

AB Processes are described for: (1) the sequential solid phase synthesis of polymers with at least one tag, which can be a light emitting and/or absorbing mol. species (optical-label), a paramagnetic or radioactive label, or a tag that permits the phys. sepn. of particles including cells. When multiple optical-labels are suitably arranged in three-dimensional space, the energy transfer from one mol. species to another can be maximized and the radiationless loss between members of the same mol. species can be minimized; (2) the coupling of these polymers to biol. active and/or biol. compatible mols. through peripheral pendant substituents having at least one reactive site; and (3) the specific cleavage of the coupled polymer from a solid phase support. The tagged-peptide or polymers produced by these processes and their conjugates with an analyte-binding species, such as a monoclonal antibody or a polynucleotide probe are described. When functionalized europium macrocyclic complexes, as taught in our U.S. patents 5,373,093 and 5,696,240, are bound to polylysine and other peptides, the emitted light increases linearly with the amt. of bound macrocyclic complex. Similar linearity will also result for multiple luminescent macrocyclic complexes of other lanthanide ions, such as samarium, terbium, and dysprosium, when they are bound to a polymer or mol.

IC ICM G01N033-545
ICS G01N033-543; G01N033-576; G01N033-532; C08F002-10; C08F002-50; C08F290-14

CC 9-15 (Biochemical Methods)
Section cross-reference(s): 2, 6, 34, 78, 79, 80

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(A, staphylococcal; conjugated polymer tag complexes and prepn. and use in assays)

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(Bak; conjugated polymer tag complexes and prepn. and use in assays)

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(C-reactive; conjugated polymer tag complexes and prepn. and use in assays)

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(bcl-2; conjugated polymer tag complexes and prepn. and use in assays)

IT Agglutinins and Lectins
Albumins, analysis
Antigens
Avidins
Blood-group substances
CD20 (antigen)
CD4 (antigen)
CD8 (antigen)
Carcinoembryonic antigen
Collagens, analysis
Cyclins
DNA
Ecdysteroids
Estrogen receptors

Estrogens
Globulins, analysis
Glucocorticoid receptors
Glycoproteins, general, analysis
Glycosaminoglycans, analysis
Hemoglobins
Hormone receptors
Hormones, animal, analysis
Immunoglobulins
Keratins
Lymphokines
Nucleic acids
Nucleosides, analysis
P-glycoproteins
Peptides, analysis
Polynucleotides
Polysaccharides, analysis
Progesterone receptors
Proliferating cell nuclear antigen
Prostaglandins
Proteins, general, analysis
RNA
Toxins
Viral RNA
Vitamins
mRNA
neu (receptor)
p53 (protein)
.alpha.-Fetoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(conjugated polymer tag complexes and prepn. and use in assays)

IT **Amino acids, biological studies**
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(conjugated polymer tag complexes and prepn. and use in assays)

IT Nucleic acids
Peptides, preparation
Polymers, preparation
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(conjugates; conjugated polymer tag complexes and prepn. and use in assays)

IT **Peptides, analysis**
Steroids, analysis
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(hormones; conjugated polymer tag complexes and prepn. and use in assays)

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(nuclear matrix-assocd.; conjugated polymer tag complexes and prepn. and use in assays)

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(retinol-binding; conjugated polymer tag complexes and prepn. and use in assays)

IT **Proteins, specific or class**
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(tumor suppressor; conjugated polymer tag complexes and prepn. and use in assays)

IT **Amino acids, biological studies**
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(D-; conjugated polymer tag complexes and prepn. and use in assays)

IT 7429-91-6DP, Dysprosium, complexes macrocyclic compds., conjugates with polymers, preparation 7440-19-9DP, Samarium, complexes macrocyclic compds., conjugates with polymers, preparation 7440-27-9DP, Terbium, complexes macrocyclic compds., conjugates with polymers, preparation 7440-53-1DP, Europium, macrocyclic complexes, conjugates with polylysine, preparation **25104-18-1DP**, Polylysine, conjugates with europium macrocyclic complexes **38000-06-5DP**, Polylysine, conjugates with europium macrocyclic complexes
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(conjugated polymer tag complexes and prepn. and use in assays)

IT 72-48-0D, Alizarin, derivs. 91-20-3D, Naphthalene, derivs., analysis 91-64-5D, Coumarin, derivs. 92-32-0D, Pyronine, derivs. 129-00-0D, Pyrene, derivs., analysis 260-94-6, Acridine 288-47-1D, Thiazole, derivs. 519-73-3D, Triphenylmethane, derivs. 532-82-1D, Chrysoidine, derivs. 588-59-0D, Stilbene, derivs. 632-99-5D, Fuchsin, derivs. 1300-73-8D, Xylidine, derivs. 1330-20-7D, Xylene, derivs. 2321-07-5D, Fluorescein, derivs. 2465-27-2D, Auramine, derivs. 13558-31-1D, derivs. 17372-87-1D, Eosin, derivs. 23065-05-6D, Styryl, derivs. 26915-12-8D, Toluidine, derivs. 113956-65-3 **138026-71-8D**, Bodipy, derivs.
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugated polymer tag complexes and prepn. and use in assays)

IT **25104-18-1**, Polylysine 26700-39-0 30425-11-7
38000-06-5, Polylysine 335388-30-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(conjugated polymer tag complexes and prepn. and use in assays)

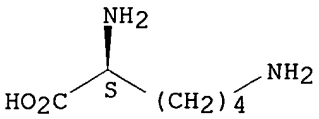
IT **25104-18-1DP**, Polylysine, conjugates with europium macrocyclic complexes **38000-06-5DP**, Polylysine, conjugates with europium macrocyclic complexes
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(conjugated polymer tag complexes and prepn. and use in assays)

RN 25104-18-1 HCAPLUS
CN L-Lysine, homopolymer (9CI) (CA INDEX NAME)

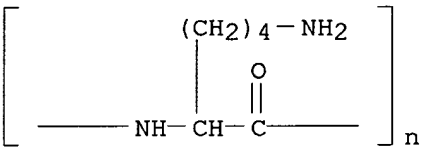
CM 1

CRN 56-87-1
CMF C6 H14 N2 O2

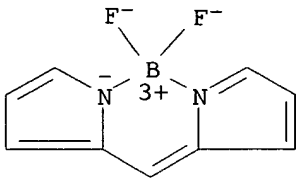
Absolute stereochemistry.



RN 38000-06-5 HCAPLUS
CN Poly[imino[(1S)-1-(4-aminobutyl)-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



IT **138026-71-8D**, Bodipy, derivs.
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugated polymer tag complexes and prepn. and use in assays)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)

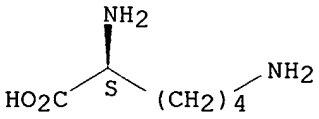


IT **25104-18-1**, Polylysine **38000-06-5**, Polylysine
RL: RCT (Reactant); RACT (Reactant or reagent)
(conjugated polymer tag complexes and prepn. and use in assays)
RN 25104-18-1 HCAPLUS
CN L-Lysine, homopolymer (9CI) (CA INDEX NAME)

CM 1

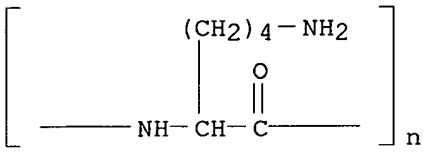
CRN 56-87-1
CMF C6 H14 N2 O2

Absolute stereochemistry.



RN 38000-06-5 HCAPLUS

CN Poly[imino[(1S)-1-(4-aminobutyl)-2-oxo-1,2-ethanediyl]] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 44 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:247216 HCAPLUS
DOCUMENT NUMBER: 134:263164
TITLE: Antibody dye conjugates for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries
INVENTOR(S): Schirner, Michael; Licha, Kai; Dinkelborg, Ludger
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023005	A1	20010405	WO 2000-EP8121	20000819
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19947559	A1	20010419	DE 1999-19947559	19990924
BR 2000014192	A	20020521	BR 2000-14192	20000819
EP 1214099	A1	20020619	EP 2000-954640	20000819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003510294	T2	20030318	JP 2001-526214	20000819
EE 200200152	A	20030415	EE 2002-152	20000819
BG 106528	A	20021229	BG 2002-106528	20020319
NO 2002001441	A	20020515	NO 2002-1441	20020322
ZA 2002003225	A	20030723	ZA 2002-3225	20020423

PRIORITY APPLN. INFO.: DE 1999-19947559 A 19990924
WO 2000-EP8121 W 20000819

AB The invention relates to antibody dye conjugates which are suited for binding to structures of newly formed vessels and to the their use for interoperatively detecting pathol. angiogenesis. Fluorescent dyes are defined that are coupled to antibodies. Thus bis(1,1'-di(4-

sulfobutyl)indocarbocyanine-5-carboxylic acid N-hydroxysuccinimide ester) was synthesized and coupled with an antibody to EDB fibronectin. The conjugate was injected into F9-teratocarcinoma-carrying mice; fluorescence in the tumor-surrounding tissues was detected.

IC ICM A61K049-00
ICS C07K016-18

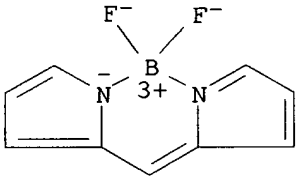
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 14

IT 67-43-6D, Diethylene triamine pentaacetic acid, complex with europium 81-88-9D, derivs. 91-64-5D, Coumarin, derivs. 294-90-6D, Cyclen, complex with europium 2321-07-5D, Fluorescein, derivs. 7440-53-1D, Europium, complexes with DTPA and cyclen, uses 15905-32-5D, Tetraiodofluorescein, derivs. 72088-94-9D, Carboxyfluorescein, derivs. **138026-71-8D**, BODIPY, derivs. 326811-67-0D, Oregon green 500 carboxylic acid, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**antibody** dye conjugates for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries)

IT **138026-71-8D**, BODIPY, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**antibody** dye conjugates for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 45 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:168190 HCAPLUS
DOCUMENT NUMBER: 134:217980
TITLE: High speed parallel molecular nucleic acid sequencing
INVENTOR(S): Schneider, Thomas D.; Rubens, Denise
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016375	A2	20010308	WO 2000-US23736	20000829
WO 2001016375	A3	20011004		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2000070868 A5 20010326 AU 2000-70868 20000829
PRIORITY APPLN. INFO.: US 1999-151580P P 19990830
WO 2000-US23736 W 20000829

AB A method and device is disclosed for high speed, automated sequencing of nucleic acid mols. A nucleic acid mol. to be sequenced is exposed to a polymerase in the presence of nucleotides which are to be incorporated into a complementary nucleic acid strand. The polymerase carries a donor fluorophore, and each type of nucleotide (e.g. A, T/U, C and G) carries a distinguishable acceptor fluorophore characteristic of the particular type of nucleotide. As the polymerase incorporates individual nucleic acid mols. into a complementary strand, a laser continuously irradiates the donor fluorophore, at a wavelength that causes it to emit an emission signal (but the laser wavelength does not stimulate the acceptor fluorophore). In particular embodiments, no laser is needed if the donor fluorophore is a luminescent mol. or is stimulated by one. The emission signal from the polymerase is capable of stimulating any of the donor fluorophores (but not acceptor fluorophores), so that as a nucleotide is added by the polymerase, the acceptor fluorophore emits a signal assocd. with the type of nucleotide added to the complementary strand. The series of emission signals from the acceptor fluorophores is detected, and correlated with a sequence of nucleotides that correspond to the sequence of emission signals.

IC ICM C12Q001-68
ICS G01N021-64

CC 3-1 (Biochemical Genetics)

IT **Proteins, specific or class**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(green fluorescent; high speed parallel mol. nucleic acid sequencing - donor fluorophores)

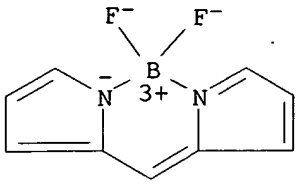
IT Microscopes
(slides, **glass**; high speed parallel mol. nucleic acid sequencing)

IT 2321-07-5, Fluorescein **138026-71-8**, BODIPY 189200-71-3, Rhodamine green
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(high speed parallel mol. nucleic acid sequencing - acceptor fluorophores)

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(high speed parallel mol. nucleic acid sequencing - acceptor fluorophores)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 46 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:64184 HCAPLUS
DOCUMENT NUMBER: 134:126759
TITLE: Biochemical sensor system with increased sensitivity by molecular amplification of the signal
INVENTOR(S): Sigrist, Hans
PATENT ASSIGNEE(S): Centre Suisse d'Electronique et de Microtechnique S.A., Switz.
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001006002	A1	20010125	WO 2000-EP6513	20000710
W: US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2796465	A1	20010119	FR 1999-9258	19990716
FR 2796465	B1	20011123		
EP 1200630	A1	20020502	EP 2000-954455	20000710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				

PRIORITY APPLN. INFO.: FR 1999-9258 A 19990716
WO 2000-EP6513 W 20000710

AB The invention concerns a biochem. sensor system with mol. amplification of the signal for detecting and analyzing a biol. entity in a biotic medium, said biol. entity being identifiable by at least an elementary strand comprising a nucleotide-specific sequence, said sensor having at its surface a detecting unit immobilized directly or indirectly, said detecting unit having a nucleotide sequence complementary to that of the biol. entity and said sensor surface being arranged to deliver to the detecting and measuring means a signal representing the variation of a phys. parameter by hybridizing the biol. entity with the detecting unit. The invention is characterized in that it consists in adding to the biotic medium monomer compds. and catalytic units capable of catalyzing from the elementary strand end of the biol. entity a polymer of said monomer compds. thereby locally increasing the mass phys. parameter at the sensor surface. Thus, the 3'-terminus of an oligonucleotide is attached to the surface of a substrate such as **glass** or metal. A target oligonucleotide is detected by hybridization with this immobilized oligonucleotide and addn. of dNTPs or fluorescent dNTPs to the 3'-terminus with terminal transferase. The presence and amt. of target is measured by changes in index of refraction or fluorescence. The no. of 3'-termini may

be increased in various ways (e.g., immobilization of particles each contg. many oligonucleotides, dendrimeric structures) in order to amplify the signal.

IC ICM C12Q001-68

CC 3-1 (Biochemical Genetics)

IT **Proteins, specific or class**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(A, oligonucleotide attachment to sensor via; biochem. sensor system with increased sensitivity by mol. amplification of signal)

IT **Proteins, specific or class**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(G, oligonucleotide attachment to sensor via; biochem. sensor system with increased sensitivity by mol. amplification of signal)

IT Nucleic acids
Oligosaccharides, analysis
Peptides, analysis
Proteins, general, analysis
RL: ANT (Analyte); ANST (Analytical study)
(biochem. sensor system with increased sensitivity by mol. amplification of signal)

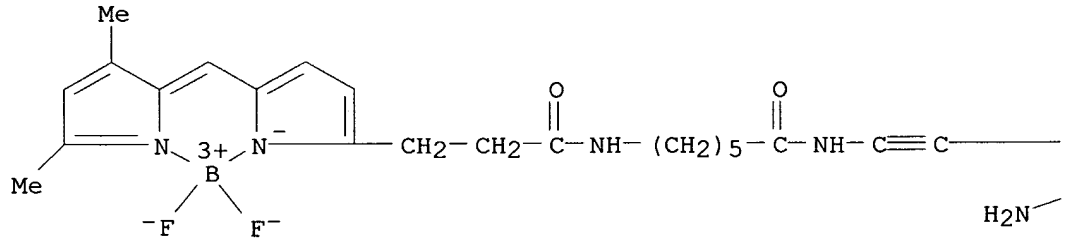
IT **321658-40-6**
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(biochem. sensor system with increased sensitivity by mol. amplification of signal)

IT **321658-40-6**
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(biochem. sensor system with increased sensitivity by mol. amplification of signal)

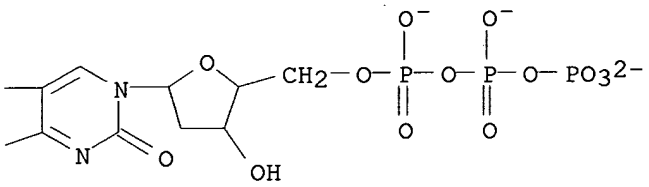
RN 321658-40-6 HCAPLUS

CN Borate(4-), [2'-deoxy-5-[[[6-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]-1-oxohexyl]amino]ethynyl]cytidine 5'-(triphosphato)(5-)]difluoro-, tetrahydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



●4 H^+



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 47 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:900384 HCAPLUS
DOCUMENT NUMBER: 134:54170
TITLE: Animal models and methods for analysis of lipid metabolism and screening of pharmaceutical and pesticidal agents that modulate lipid metabolism using SREBP pathway genes
INVENTOR(S): Costa, Michael A.; Doberstein, Stephen Kohl; Elson, Sarah; Ferguson, Kimberly Carr; Homburger, Sheila Akiko; Ebens, Allen James Jr.; Keegan, Kevin Patrick; Stout, Thomas J.
PATENT ASSIGNEE(S): Exelixis, Inc., USA
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000076308	A1	20001221	WO 2000-US15880	20000608
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1196026	A1	20020417	EP 2000-939730	20000608
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003501102	T2	20030114	JP 2001-502665	20000608

PRIORITY APPLN. INFO.:
US 1999-332522 A 19990614
US 2000-189700P P 20000315
WO 2000-US15880 W 20000608

AB Drosophila melanogaster and Caenorhabditis elegans that have been genetically modified to express or mis-express proteins involved in the sterol regulatory element binding protein (SREBP) pathway are described. These genetically modified animal models have identifiable phenotypes that

make them useful in assays for studying lipid metab., other genes implicated in lipid metab., and compds. capable of modulating lipid metab. pathways. Methods for studying lipid metab. in living nematodes using fluorescently labeled fatty acid conjugates, such BODIPYTM fatty acid conjugates, are also described. Novel SREBP pathway nucleic acid and protein sequences are also described.

IC ICM A01K067-00
ICS A01K033-00; G01N033-00

CC 12-5 (Nonmammalian Biochemistry)
Section cross-reference(s): 1, 3, 6

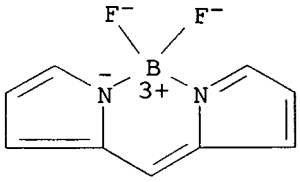
IT **Proteins, specific or class**
RL: BOC (Biological occurrence); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)
(SCAP (SREBP cleavage-activating protein), from Drosophila; animal models and methods for anal. of lipid metab. and screening of pharmaceutical and pesticidal agents that modulate lipid metab. using SREBP pathway genes)

IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**glass**, use of promoter of; animal models and methods for anal. of lipid metab. and screening of pharmaceutical and pesticidal agents that modulate lipid metab. using SREBP pathway genes)

IT **138026-71-8D**, BODIPY, fatty acid conjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nematode staining with; animal models and methods for anal. of lipid metab. and screening of pharmaceutical and pesticidal agents that modulate lipid metab. using SREBP pathway genes)

IT **138026-71-8D**, BODIPY, fatty acid conjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(nematode staining with; animal models and methods for anal. of lipid metab. and screening of pharmaceutical and pesticidal agents that modulate lipid metab. using SREBP pathway genes)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)

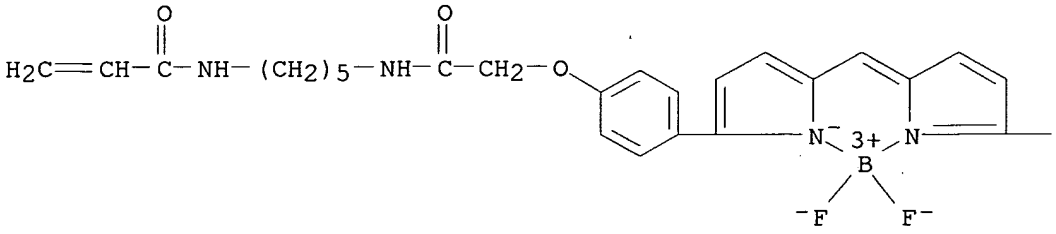


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 48 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:721439 HCAPLUS
DOCUMENT NUMBER: 134:82471
TITLE: Tuning chemotactic responses with synthetic multivalent ligands

AUTHOR(S): Gestwicki, Jason E.; Strong, Laura E.; Kiessling, Laura L.
CORPORATE SOURCE: Departments of Chemistry and Biochemistry, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Chemistry & Biology (2000), 7(8), 583-591
CODEN: CBOLE2; ISSN: 1074-5521
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Background: Multivalent ligands have been used previously to investigate the role of ligand valency and receptor clustering in eliciting biol. responses. Studies of multivalent ligand function, however, typically have employed divalent ligands or ligands of undefined valency. How cells respond to multivalent ligands of distinct valencies, which can cluster a signaling receptor to different extents, has never been examd. The chemoreceptors, which mediate chemotactic responses in bacteria, are localized, and clustering has been proposed to play a role in their function. Using multivalent ligands directed at the chemoreceptors, we hypothesized that we could exploit ligand valency to control receptor occupation and clustering and, ultimately, the cellular response. Results: To investigate the effects of ligand valency on the bacterial chemotactic response, we generated a series of linear multivalent arrays with distinct valencies by ring-opening metathesis polymn. We report that these synthetic ligands elicit bacterial chemotaxis in both Escherichia coli and Bacillus subtilis. The chemotactic response depended on the valency of the ligand; the response of the bacteria can be altered by varying chemoattractant ligand valency. Significantly, these differences in chemotactic responses were related to the ability of the multivalent ligands to cluster chemoreceptors at the plasma membrane. Conclusions: Our results demonstrate that ligand valency can be used to tune the chemotactic responses of bacteria. This mode of regulation may arise from changes in receptor occupation or changes in receptor clustering or both. Our data implicate changes in receptor clustering as one important mechanism for altering cellular responses. Given the diverse events modulated by changes in the spatial proximity of cell surface receptors, our results suggest a general strategy for tuning biol. responses.
CC 6-7 (General Biochemistry)
Section cross-reference(s): 9, 10, 33
IT 50-99-7, D-Glucose, biological studies 59-23-4, D-Galactose, biological studies 316375-29-8 **316381-45-0D**, ring-opening metathesis polymn. 316384-77-7
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(tuning chemotactic responses with synthetic multivalent **ligands**)
IT **316381-45-0D**, ring-opening metathesis polymn.
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(tuning chemotactic responses with synthetic multivalent **ligands**)
RN 316381-45-0 HCAPLUS
CN Boron, difluoro[N-[5-[[[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]phenoxy]acetyl]amino]pentyl]-2-propenamidato]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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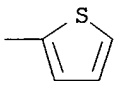


REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 49 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:681124 HCAPLUS
DOCUMENT NUMBER: 134:21008
TITLE: Flow cytometric monitoring of Rhodococcus erythropolis and Ochrobactrum anthropi in a mixed culture
AUTHOR(S): Muller, S.; Losche, A.; Mertingk, H.; Beisker, W.; Babel, W.
CORPORATE SOURCE: Sachsisches Institut fur Angewandte Biotechnologie (SIAB) an der Universitat Leipzig Permoserstrae 15, Leipzig, 04318, Germany
SOURCE: Acta Biotechnologica (2000), 20(3-4), 219-233
CODEN: ACBTDD; ISSN: 0138-4988
PUBLISHER: Wiley-VCH Verlag Berlin GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The GRAM-pos. bacterium Rhodococcus erythropolis K2-3 and the GRAM-neg. Ochrobactrum anthropi K2-14 are capable of synergistically degrading 4-(2,4-dichlorophenoxy)butyric acid (2,4-DB). The 2 strains execute this task in a symbiotic manner, but the nature of the interactions involved in the degrdn. is only partially understood as yet. An essential 1st step in elucidating the interaction is to be able to monitor the 2 strains sep., at the cellular level, within mixed populations. Therefore a method exploiting fluorescently labeled lectin probes was developed. Since Con A binds specifically to R. erythropolis K2-3, it was selected and linked to the fluorescent dye Bodipy 630/650, which has an excitation max. in the red part of the visible light spectrum. Forward light scatter (FSC) and DNA fluorescence from both strains were also measured to obtain simultaneous information about their physiol. states. The 3 parameters were conveniently monitored by dual and triple excitation flow cytometry in conjunction with double fluorescent staining techniques. The strains

were identified using an epifluorescence microscope. These techniques were found powerful tools for the population anal. of this mixed bacterial system.

CC 60-6 (Waste Treatment and Disposal)
Section cross-reference(s): 9

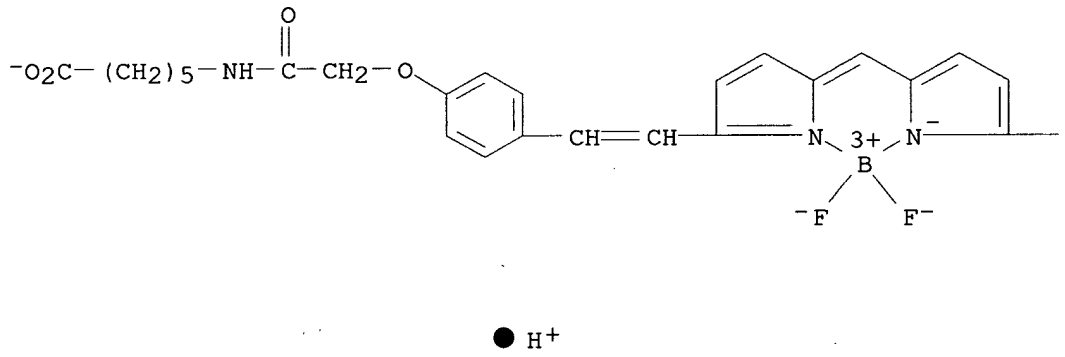
IT **209340-49-8D**, BODIPY 630/650, **lectin** conjugate
RL: RCT (Reactant); RACT (Reactant or reagent)
(BODIPY 630/650; flow cytometric monitoring of Rhodococcus erythropolis and Ochrobactrum anthropi in mixed culture)

IT **209340-49-8D**, BODIPY 630/650, **lectin** conjugate
RL: RCT (Reactant); RACT (Reactant or reagent)
(BODIPY 630/650; flow cytometric monitoring of Rhodococcus erythropolis and Ochrobactrum anthropi in mixed culture)

RN 209340-49-8 HCAPLUS

CN Borate(1-), difluoro[6-[[[4-[2-[2-[[5-(2-thienyl)-1H-pyrrol-2-yl-.kappa.N]methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]acetyl]amino]hexanoato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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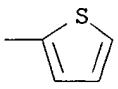


REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 50 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:649426 HCAPLUS
DOCUMENT NUMBER: 134:14821
TITLE: Printing proteins as microarrays for high-throughput function determination
AUTHOR(S): MacBeath, Gavin; Schreiber, Stuart L.
CORPORATE SOURCE: Center for Genomics Research, Harvard University, Cambridge, MA, 02138, USA

SOURCE: Science (Washington, D. C.) (2000), 289(5485), 1760-1763
CODEN: SCIEAS; ISSN: 0036-8075
PUBLISHER: American Association for the Advancement of Science
DOCUMENT TYPE: Journal
LANGUAGE: English

see above

AB Systematic efforts are currently under way to construct defined sets of cloned genes for high-throughput expression and purifn. of recombinant proteins. To facilitate subsequent studies of protein function, we have developed miniaturized assays that accommodate extremely low sample vols. and enable the rapid, simultaneous processing of thousands of proteins. A high-precision robot designed to manuf. complementary DNA microarrays was used to spot proteins onto chem. derivatized **glass** slides at extremely high spatial densities. The proteins attached covalently to the slide surface yet retained their ability to interact specifically with other proteins, or with small mols., in soln. Three applications for protein microarrays were demonstrated: screening for protein-protein interactions, identifying the substrates of protein kinases, and identifying the protein targets of small mols.

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 1, 6, 7

IT **Proteins, specific or class**
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(FKBP-12 (FK 506-binding protein, 12,000-mol.-wt.), conjugates with Cy5, immobilized protein response to; printing proteins as microarrays for high-throughput function detn.)

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(FRAP (FKBP-rapamycin-assocd. protein), immobilization of binding domain of; printing proteins as microarrays for high-throughput function detn.)

IT **Proteins, specific or class**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(G, immobilization and interaction of, with labeled IgG; printing proteins as microarrays for high-throughput function detn.)

IT **Proteins, specific or class**
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(elk1, immobilized; printing proteins as microarrays for high-throughput function detn.)

IT **Proteins, general, biological studies**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(printing proteins as microarrays for high-throughput function detn.)

IT **Proteins, specific or class**
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL

(Biological study); PROC (Process); USES (Uses)
(protein phosphatase inhibitor 2, immobilized; printing proteins as microarrays for high-throughput function detn.)

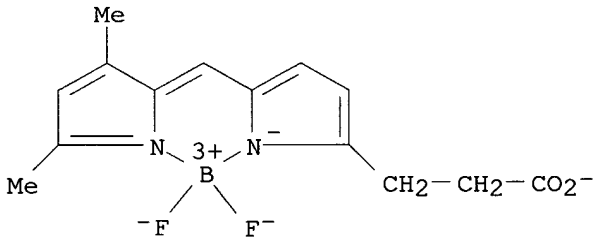
IT **Glass,** reactions
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(slides, derivatized; printing proteins as microarrays for high-throughput function detn.)

IT 53123-88-9, Rapamycin 65189-71-1D, Kemptide, immobilized
165599-63-3D, BODIPY-FL, conjugates with IgG, immobilized protein G response to
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(printing proteins as microarrays for high-throughput function detn.)

IT **165599-63-3D,** BODIPY-FL, conjugates with IgG, immobilized protein G response to
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(printing proteins as microarrays for high-throughput function detn.)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



● H^+

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 51 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:536311 HCAPLUS
DOCUMENT NUMBER: 134:157934
TITLE: Quantitative imaging in live human cells reveals intracellular .alpha.1-adrenoceptor ligand-binding sites
AUTHOR(S): Mackenzie, Janet F.; Daly, Craig J.; Pediani, John D.; McGrath, John C.
CORPORATE SOURCE: Autonomic Physiology Unit, Division of Neuroscience and Biomedical Systems, Institute of Biomedical & Life Sciences, University of Glasgow, Glasgow, UK
SOURCE: Journal of Pharmacology and Experimental Therapeutics

(2000), 294(2), 434-443
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cellular distribution and binding characteristics of native .alpha.1-adrenoceptors (ARs) were detd. in a live, single, human smooth muscle cell (SMC) with confocal laser scanning microscopy and a fluorescent ligand, BODIPY-FL prazosin (QAPB). This allowed single-cell competitive ligand binding and showed that 40% of .alpha.1-AR-binding sites in native cells are intracellular. QAPB had high affinity and acted as a nonselective, competitive antagonist vs. [3H]prazosin at cloned human .alpha.1a-, .alpha.1b-, and .alpha.1d-AR subtypes on membrane prepns. and whole cells. RS100329 had 70-fold selectivity for .alpha.1a-ARs vs. .alpha.1b- and .alpha.1d-ARs, validating its use to identify this subtype. In similar cells QAPB-assocd. fluorescence provided quant. data analogous and comparable to [3H]prazosin binding in whole cells. In human, dissocd., prostatic smooth muscle cells QAPB-assocd. fluorescence binding exhibited specific high-affinity binding properties (FKD = 0.63.+-.0.02 nM), which was 3- to 4-fold higher compared with recombinant cells (FKD = 2.1-2.3 nM). Internal consistency in the data showed that affinity is greater, in general, in membrane prepns. than in cells but also greater in the native prostatic tissues or cells than in equiv. recombinant receptors. Fluorescence revealed binding sites both on the plasmalemmal membrane and on intracellular compartments: at all locations RS100329 inhibited QAPB binding identifying the sites as .alpha.1A-ARs. Quant. three-dimensional mapping of QAPB-assocd. fluorescence binding in native human cells showed that 40% of high-affinity-binding sites was in intracellular compartments. This provides a potential new site for physiol. agonism and makes intracellular access a potential differentiator of drug action.

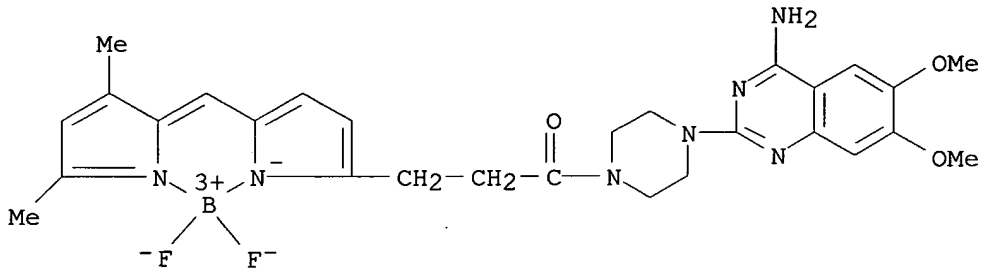
CC 2-8 (Mammalian Hormones)

IT 613-67-2, WB4101 19216-56-9, Prazosin 21102-95-4, BMY7378
34661-85-3, 5-Methylurapidil 74191-85-8, Doxazosin 80223-99-0, YM12617
167883-21-8, (R)-A 61603 **175799-93-6**, BODIPY FL-prazosin
232953-52-5, RS 100329
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(.alpha.1-adrenoceptor **ligand**-binding sites are intracellularly localized in live human prostatic smooth muscle cells)

IT **175799-93-6**, BODIPY FL-prazosin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(.alpha.1-adrenoceptor **ligand**-binding sites are intracellularly localized in live human prostatic smooth muscle cells)

RN 175799-93-6 HCAPLUS

CN Boron, [1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]piperazinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 52 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:445749 HCAPLUS
DOCUMENT NUMBER: 133:145022
TITLE: Ligand binding and structural properties of segments of GABAA receptor .alpha.1 subunit overexpressed in Escherichia coli
AUTHOR(S): Hang, Jun; Shi, Haifeng; Li, Dongyang; Liao, Yinglei; Lian, Dejun; Xiao, Yazhong; Xue, Hong
CORPORATE SOURCE: Department of Biochemistry, Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong
SOURCE: Journal of Biological Chemistry (2000), 275(25), 18818-18823
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The GABAA receptor is the target for numerous therapeutic compds. In the present study, the Gln28-Leu296, Gln28-Arg276, Gln28-Arg248, and Gln28-Glu165 (numbering of bovine precursor protein) segments of its .alpha.1 subunit were overexpressed in Escherichia coli, along with Cys166-Leu296 produced previously, for structural anal. by CD and ligand binding studies by fluorescence spectroscopy. Results showed that the protein segments were rich in .beta.-sheet structures. Binding of the fluorescent benzodiazepine Bodipy-FL Ro-1986 was evident from fluorescence resonance energy transfer and fluorescence anisotropy measurements. The binding affinity was in the micromolar range. The binding was attributable more to Cys166-Leu296 than to Gln28-Glu165 and was inhibited by known central benzodiazepine site ligands. Three point mutations, Y187A, T234A, and Y237A, were found to perturb protein secondary structures. Studies with the single Trp mutants W198Y and W273Y indicated that Trp273 was closer to the binding site than Trp198.

CC 2-2 (Mammalian Hormones)

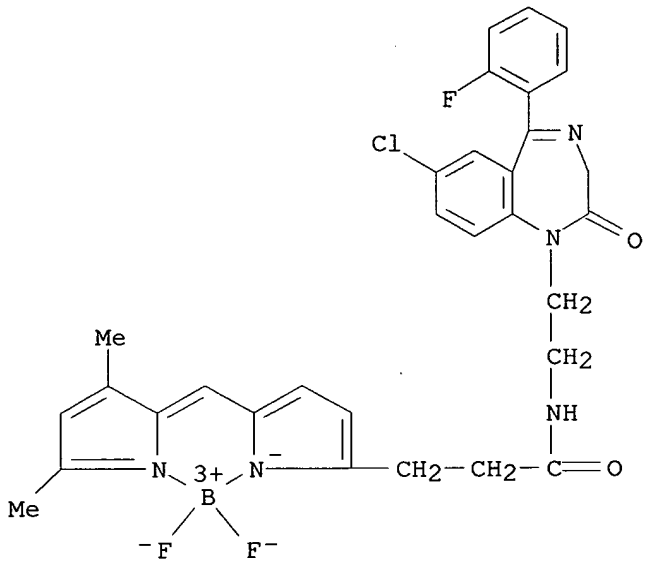
IT 56-12-2, GABA, biological studies 439-14-5, Diazepam 2763-96-4, Muscimol 29975-16-4, Estazolam 74214-62-3, .beta.-CCE **216483-91-9**, Ro 1986-BODIPY
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(GABAA receptor .alpha.1-subunit fragment **ligand** binding and structural properties after overexpression in Escherichia coli)

IT **216483-91-9**, Ro 1986-BODIPY
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)
(GABAA receptor .alpha.1-subunit fragment **ligand** binding and structural properties after overexpression in Escherichia coli)

RN 216483-91-9 HCAPLUS

CN Boron, [N-[2-[7-chloro-5-(2-fluorophenyl)-2,3-dihydro-2-oxo-1H-1,4-benzodiazepin-1-yl]ethyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 53 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:441672 HCAPLUS
DOCUMENT NUMBER: 133:55627
TITLE: Integrated portable biological detection system
INVENTOR(S): Cheng, Jing; Wu, Lei; Heller, Michael; Sheldon, Ed; Diver, Jonathan; O'Connell, James P.; Smolko, Dan; Jalali, Shila; Willoughby, David
PATENT ASSIGNEE(S): Nanogen, Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000037163	A1	20000629	WO 1999-US31098	19991222

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,

TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 9916840	A	20011009	BR 1999-16840	19991222
EP 1144092	A1	20011017	EP 1999-968558	19991222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002536962	T2	20021105	JP 2000-589268	19991222
NZ 512087	A	20030530	NZ 1999-512087	19991222
AU 763514	B2	20030724	AU 2000-25950	19991222
PRIORITY APPLN. INFO.:			US 1998-113730P P	19981223
			WO 1999-US31098 W	19991222

AB Provided is an integrated, portable system and device for performing active, integrated multi-step sample prepn. and mol. diagnostic anal. of biol. samples using a minimal no. of electronically addressable microchips. Bacterial and cancer cells were sepd. from peripheral human blood in microfabricated electronic chips by dielectrophoresis. The isolated cells were examd. by staining the nuclei with fluorescent dye followed by laser induced fluorescence imaging. DNA and RNA were released from the isolated cells electronically and specific marker sequences were detected by DNA amplification followed by electronic hybridization to immobilized capture probes. Efforts towards the construction of a "lab.-on-a-chip" system are presented which involves the selection of DNA probes, dyes, reagents and prototyping of the fully integrated portable instrument.

IC ICM B01D057-02
ICS G01N015-06; C12M001-36; C12M001-34

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 3, 10, 14

IT **Proteins, general, analysis**
Receptors
RL: ANT (Analyte); ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(binding interactions with ligands; integrated portable biol. detection system)

IT Analytical apparatus
Bacteria (Eubacteria)
Bioreactors
Biosensors
Blood analysis
CCD cameras
Cell
Cell nucleus
Charge coupled devices
Computers
Control apparatus
Cytolysis
Dielectrophoresis
Electric current
Electrodes
Erythrocyte
Eukaryote (Eukaryotae)
Fluorescent dyes
Lasers

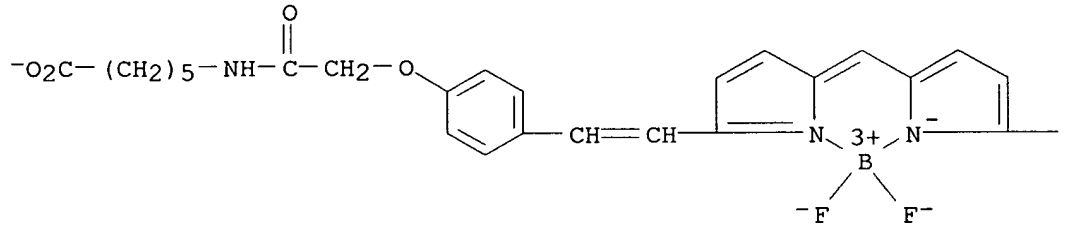
Leukocyte
Nucleic acid hybridization
Optical beam splitters
PCR (polymerase chain reaction)
Polyacrylamide gel electrophoresis
Prokaryote
Pumps
Sample preparation
Semiconductor lasers
Sensors
Separation
(integrated portable biol. detection system)

IT **209340-49-8D**, conjugates with oligonucleotide probe
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(integrated portable biol. detection system)

IT **209340-49-8D**, conjugates with oligonucleotide probe
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(integrated portable biol. detection system)

RN 209340-49-8 HCAPLUS
CN Borate(1-), difluoro[6-[[[4-[2-[2-[[5-(2-thienyl)-1H-pyrrol-2-yl-.kappa.N]methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]acetyl]amino]hexanoato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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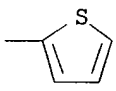
PAGE 1-B



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 54 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:367104 HCAPLUS
DOCUMENT NUMBER: 133:14301
TITLE: Method and apparatus for identifying the function of biological molecules
INVENTOR(S): Ng, Jocelyn; Jay, Daniel G.; Ge, Liming; Ilag, Leodevico
PATENT ASSIGNEE(S): Xerion Pharmaceuticals G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

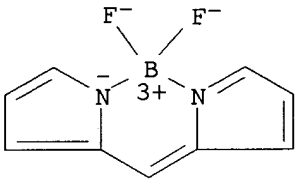
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1004873	A1	20000531	EP 1999-123161	19991122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19854195	A1	20000629	DE 1998-19854195	19981124
DE 19854195	C2	20010201		
WO 2000031517	A1	20000602	WO 1999-EP7126	19990924
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9961966	A1	20000613	AU 1999-61966	19990924
AU 761573	B2	20030605		
EP 1149280	A1	20011031	EP 1999-948861	19990924
EP 1149280	B1	20021030		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002530670	T2	20020917	JP 2000-584281	19990924
AT 227021	E	20021115	AT 1999-948861	19990924
ES 2186412	T3	20030501	ES 1999-948861	19990924
JP 2000206116	A2	20000728	JP 1999-332759	19991124

PRIORITY APPLN. INFO.: DE 1998-19854195 A 19981124
WO 1999-EP7126 W 19990924

AB Methods for identification of the function of a ligand using chromophore-assisted laser inactivation (CALI) techniques are described which entail selecting a ligand binding partner specific to the ligand of interest; coupling the ligand binding partner with a laser-activatable marker (tag), optionally after modifying the ligand binding partner to produce efficient bonding with the marker, to produce a tagged binding partner; bringing the tagged binding partner and the ligand into contact to form a ligand-tagged binding partner complex; and irradiating the complex with laser light so that the ligand is selectively modified by the tagged binding partner. The tag may be attached after the binding partner was brought into contact with the ligand of interest. The ligand binding partner may be obtained from a combinatorial library. App. for using the methods for automatic identification of protein functionality is also described.

IC ICM G01N021-64
ICS G01N033-58
CC 9-5 (Biochemical Methods)
IT Oligonucleotides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**aptamers**; chromophore-assisted laser inactivation methods and app. for identifying the function of biol. mols.)
IT **Proteins, general, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(chromophore-assisted laser inactivation methods and app. for identifying the function of biol. mols.)
IT Antibodies
DNA
Immunoglobulins
Peptide nucleic acids
Peptides, uses
RNA
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(reaction products with reporter dyes; chromophore-assisted laser inactivation methods and app. for identifying the function of biol. mols.)
IT 56-87-1D, Lysine, compds. with reporter dyes 91-64-5D, Coumarin, dialkylamino derivs., reaction products with ligand binding partners 569-64-2D, Malachite green, reaction products with ligand binding partners 989-38-8D, Rhodamin 6G, reaction products with ligand binding partners 2321-07-5D, Fluorescein, reaction products with ligand binding partners 2768-89-0D, Rhodamine X, reaction products with ligand binding partners 3520-42-1D, Lissamine rhodamine B, reaction products with ligand binding partners 16423-68-0D, Erythrosin, reaction products with ligand binding partners 17372-87-1D, Eosin, reaction products with ligand binding partners 31275-23-7D, reaction products with ligand binding partners 43070-85-5D, Hydroxycoumarin, reaction products with ligand binding partners 61419-02-1D, Naphthofluorescein, reaction products with ligand binding partners 68238-36-8D, Isosulfan blue, reaction products with ligand binding partners 70281-37-7D, Tetramethylrhodamine, reaction products with ligand binding partners 82354-19-6D, Texas Red, reaction products with ligand binding partners 99752-92-8D, Rhodamine Red, reaction products with ligand binding partners 106562-32-7D, AMCA, reaction products with ligand binding partners 107347-53-5D, reaction products with ligand binding partners 112117-57-4D, reaction products with ligand binding partners **138026-71-8D**, BODIPY, reaction products with **ligand** binding partners 138039-55-1D, Cascade Blue, reaction products with ligand binding partners 138721-71-8D, reaction products with ligand binding partners 146397-17-3D, Cyanine 3.18, reaction products with ligand binding partners 151820-47-2D, DM-NERF, reaction products with ligand binding partners 183185-51-5D, Rhodol green, reaction products with ligand binding partners 189200-71-3D, Rhodamine Green, reaction products with ligand binding partners 195136-58-4D, Oregon Green 488, reaction products with ligand binding partners 211738-07-7D, CL-NERF, reaction products with ligand binding partners 244636-14-4D, AMCA-S, reaction products with ligand binding partners 272118-31-7D, reaction products with ligand binding partners 272444-12-9D, Eosine F 3S, reaction products with ligand binding partners
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(chromophore-assisted laser inactivation methods and app. for identifying the function of biol. mols.)

IT **138026-71-8D**, BODIPY, reaction products with **ligand** binding partners
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(chromophore-assisted laser inactivation methods and app. for identifying the function of biol. mols.)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



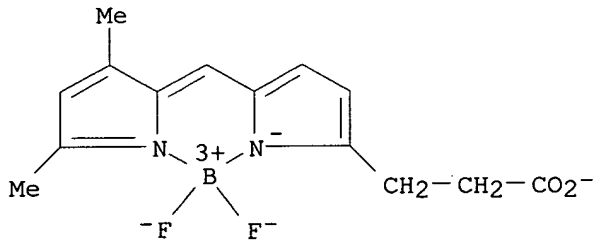
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 55 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:194242 HCAPLUS
DOCUMENT NUMBER: 133:204855
TITLE: Antigen-binding property of antibody multilayer membrane
AUTHOR(S): Saiki, Hidekazu; Hoshi, Tomonori; Anzai, Junichi
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Tohoku University, Aramaki, Aoba-ku, Sendai, 980-8578, Japan
SOURCE: Chemical Sensors (1999), 15(Suppl. B, Proceedings of the 29th Chemical Sensor Symposium, 1999), 31-33
CODEN: KAGSEU
PUBLISHER: Denki Kagakkai Kagaku Sensa Kenkyukai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Spatially ordered multilayer films of antibody are prepd. by the layer-by-layer deposition of avidin and biotin-labeled antibody onto the surface of quartz slide. The deposition behavior of the multilayer films is spectrophotometrically monitored using dye-labeled avidin or directly from the absorbance of protein. The spectrophotometric date shows that biotin-labeled antibody and avidin can be built into spatially ordered multilayer structure by the layer-by-layer deposition. The antibody retains the binding activity in part to the antigen: only the outermost 3 or 4 layers of the antibody exhibits the binding activity. A further improvement will be needed to develop the multilayer films in which the antibody fully exhibits its binding activity.
CC 9-1 (Biochemical Methods)
IT 82354-19-6, Texas Red **165599-63-3**, Bodipy FL
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(**avidins** labeled with; **antigen**-binding property of **antibody** multilayer membrane)
IT **165599-63-3**, Bodipy FL
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(**avidins** labeled with; **antigen**-binding property of

antibody multilayer membrane)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 56 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:156102 HCAPLUS

DOCUMENT NUMBER: 133:71038

TITLE: Ultrasensitive Fluorescence-Based Detection of Nascent Proteins in Gels

AUTHOR(S): Gite, Sadanand; Mamaev, Sergey; Olejnik, Jerzy; Rothschild, Kenneth

CORPORATE SOURCE: AmberGen, Inc., Boston, MA, 02215, USA

SOURCE: Analytical Biochemistry (2000), 279(2), 218-225
CODEN: ANBCA2; ISSN: 0003-2697

PUBLISHER: Academic Press

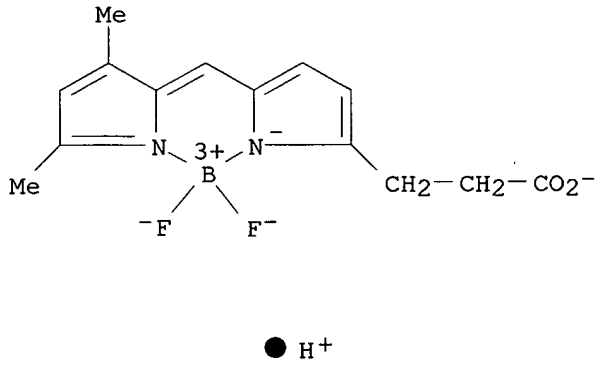
DOCUMENT TYPE: Journal

LANGUAGE: English

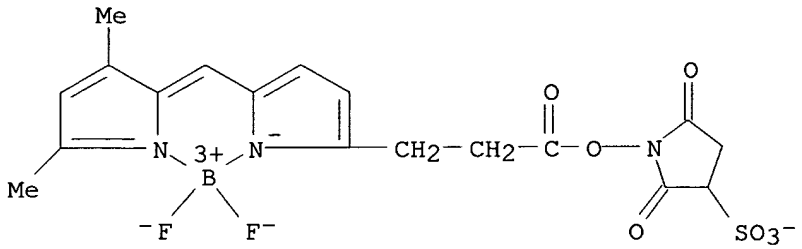
see above

AB The most common method of anal. of proteins synthesized in a cell-free translation system (e.g., nascent proteins) involves the use of radioactive amino acids such as [35S]methionine or [14C]leucine. We report a sensitive, nonisotopic, fluorescence-based method for the detection of nascent proteins directly in polyacrylamide gels. A fluorescent reporter group is incorporated at the N-terminus of nascent proteins using an Escherichia coli initiator tRNAfmet misaminoacylated with methionine modified at the .alpha.-amino group. In addn. to the normal formyl group, we find that the protein translational machinery accepts BODIPY-FL, a relatively small fluorophore with a high fluorescent quantum yield, as an N-terminal modification. Under the optimal conditions, fluorescent bands from nanogram levels of in vitro-produced proteins could be detected directly in gels using a conventional UV-transilluminator. Higher sensitivity (.apprx.100-fold) could be obtained using a laser-based fluorescent gel scanner. The major advantages of this approach include elimination of radioactivity and the rapid detection of the protein bands immediately after electrophoresis without any downstream processing. The ability to rapidly synthesize nascent proteins contg. an N-terminal tag facilitates many biotechnol. applications including functional anal. of gene products, drug discovery, and mutation screening. (c) 2000 Academic Press.

CC 9-16 (Biochemical Methods)
ST fluorometry protein detection **gel electrophoresis**
IT Fluorometry
Polyacrylamide gel electrophoresis
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
IT **Proteins, general, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
IT **165599-63-3,** BODIPY-FL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
IT **217190-17-5,** BODIPY FL,SSE
RL: RCT (Reactant); RACT (Reactant or reagent)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
IT **165599-63-3,** BODIPY-FL
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



IT **217190-17-5,** BODIPY FL,SSE
RL: RCT (Reactant); RACT (Reactant or reagent)
(detection of proteins in polyacrylamide gels by fluorescent labeling using misaminoacylated tRNAs and BODIPY-FL)
RN 217190-17-5 HCAPLUS
CN Borate(1-), [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-dioxo-3-pyrrolidinesulfonato(2-)]difluoro-, sodium, (T-4)- (9CI) (CA INDEX NAME)



● Na^+

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

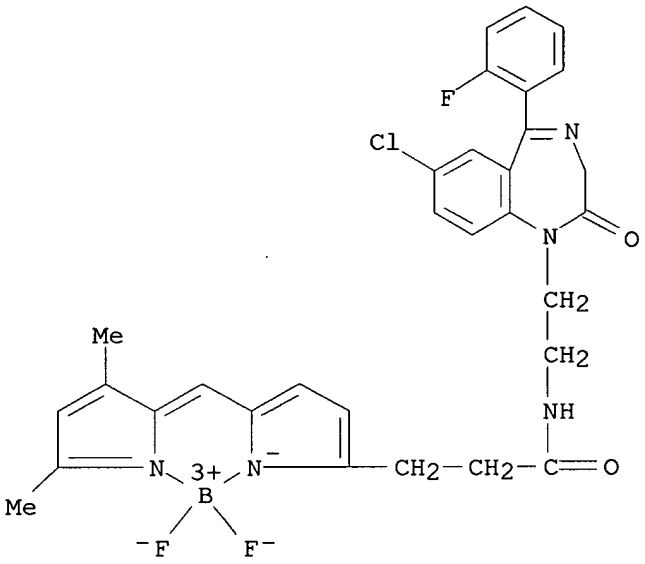
L27 ANSWER 57 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:74856 HCAPLUS
DOCUMENT NUMBER: 132:217068
TITLE: Fluorescent-labeled ligands for the benzodiazepine receptor. Part 1: Synthesis and characterization of fluorescent-labeled benzodiazepines
AUTHOR(S): Janssen, M. J.; Hulst, R.; Kellogg, R. M.; Hendriks, M. M. W. B.; Ensing, K.; De Zeeuw, R. A.
CORPORATE SOURCE: Department of Analytical Chemistry and Toxicology, University Centre for Pharmacy, Groningen, 9713 AV, Neth.
SOURCE: Pharmazie (2000), 55(1), 42-48
CODEN: PHARAT; ISSN: 0031-7144
PUBLISHER: Govi-Verlag Pharmazeutischer Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Because radioactive labeled ligands in receptor assays have several disadvantages, we synthesized a no. of fluorescent-labeled benzodiazepines. Several fluorophores were attached at different positions of 1,4-benzodiazepine mols. in order to assess the impact of the fluorophores and their coupling position on the affinity for the benzodiazepine receptor. Besides the 1,4-benzodiazepines, the 1,2-annelated 1,4-benzodiazepines were also used for labeling. A metabolite of flumazenil, desethylflumazenil (Ro15-3890), was labeled with the fluorophore 4-bromomethyl-7-methoxy coumarin, with and without the incorporation of a spacer chain, yielding the methyl-methoxycoumarin (Mmc) derivs. Mmc-Ro15-3890 and Mmc-O-CO-(CH2)3-Ro15-3890, resp. After the synthesis, the fluorescent-labeled benzodiazepines were purified by HPLC, using an anal. RP-C18 column. For the purifn. of Mmc-O-CO-(CH2)3-Ro15-3890, the chromatog. system was optimized, using multi-criteria decision making (MCDM) techniques. The binding affinities for the benzodiazepine receptor and the fluorescence characteristics were detd. for the resulting products.
CC 1-12 (Pharmacology)
Section cross-reference(s): 28
IT 146-22-5, Nitrazepam 17617-23-1, Flurazepam 78755-81-4, Flumazenil 121982-58-9 **216483-91-9**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(synthesis and characterization of fluorescent-labeled **ligands** for benzodiazepine receptors)

IT **216483-91-9**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(synthesis and characterization of fluorescent-labeled **ligands** for benzodiazepine receptors)

RN 216483-91-9 HCAPLUS

CN Boron, [N-[2-[7-chloro-5-(2-fluorophenyl)-2,3-dihydro-2-oxo-1H-1,4-benzodiazepin-1-yl]ethyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 58 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:4774 HCAPLUS

DOCUMENT NUMBER: 132:117809

TITLE: Intracellular dynamics of sst5 receptors in transfected COS-7 cells: maintenance of cell surface receptors during ligand-induced endocytosis

AUTHOR(S): Stroh, Thomas; Jackson, Alexander C.; Sarret, Philippe; Farra, Claude Dal; Vincent, Jean-Pierre; Kreienkamp, Hans-Jurgen; Mazella, Jean; Beaudet, Alain

CORPORATE SOURCE: Montreal Neurological Institute, McGill University, Montreal, QC, H3A 2B4, Can.

SOURCE: Endocrinology (2000), 141(1), 354-365
CODEN: ENDOAO; ISSN: 0013-7227

PUBLISHER: Endocrine Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Internalization of G protein-coupled receptors is crucial for resensitization of phosphorylation-desensitized receptors, but also for

their long term desensitization through sequestration. To elucidate the mechanisms regulating cell surface availability of the somatostatin (SRIF) receptor subtype sst5, the authors characterized its internalization properties in transfected COS-7 cells using biochem., confocal microscopic, and electron microscopic techniques. The authors' results demonstrated rapid and efficient sequestration of specifically bound [125I]Tyr0-D-Trp8-SRIF (up to 45% of bound radioactivity). Combined immunocytochem. detection of sst5 and visualization of a fluorescent SRIF analog by confocal microscopy revealed that, whereas the internalized ligand progressively clustered toward the cell center with time, immunoreactive receptors remained predominantly assocd. with the plasma membrane. The preservation of cell surface receptors was confirmed by binding expts. on whole cells revealing a lack of saturability of [125I]Tyr0-D-Trp8-SRIF binding at 37 C. Binding was rendered saturable by the drug monensin, showing that receptor recycling played a key role in the preservation of cell surface receptors. Electron microscopy demonstrated that in addn. to receptor recycling, internalization of receptor-ligand complexes triggered a massive recruitment of sst5 receptor mols. from intracellular stores to the membrane. This combination of recycling and recruitment of spare receptors may protect sst5 from long term down-regulation through sequestration and, therefore, facilitate extended SRIF signaling.

CC 2-5 (Mammalian Hormones)

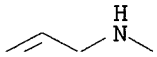
IT 38916-34-6, Somatostatin 58976-46-8 73032-94-7, Somatostatin-28 (sheep) 99341-94-3 **214284-53-4**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(intracellular dynamics of somatostatin sst5 receptors in transfected COS-7 cells in relation to maintenance of cell surface receptors during **ligand** induced endocytosis)

IT **214284-53-4**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(intracellular dynamics of somatostatin sst5 receptors in transfected COS-7 cells in relation to maintenance of cell surface receptors during **ligand** induced endocytosis)

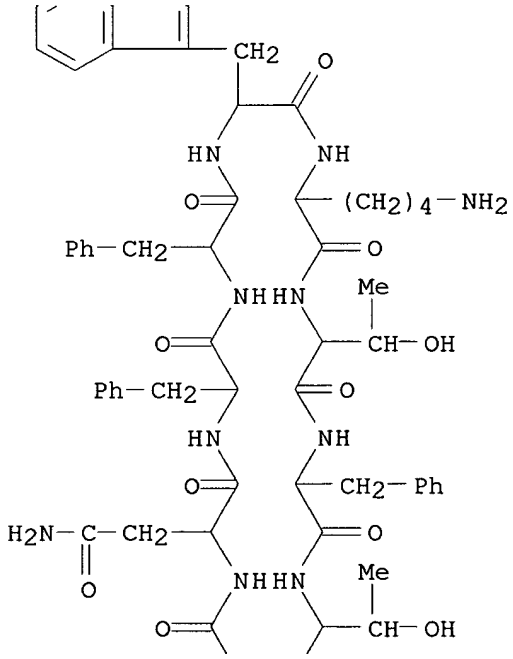
RN 214284-53-4 HCAPLUS

CN Borate(1-), [N-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]-8-D-tryptophansomatostatin (sheep)ato(2-)]difluoro-, hydrogen (9CI) (CA INDEX NAME)

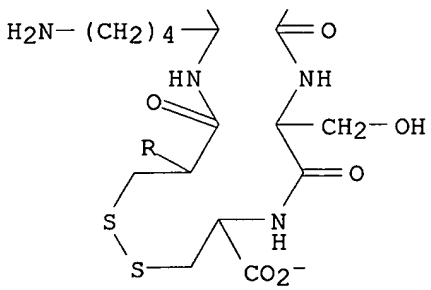
PAGE 1-A

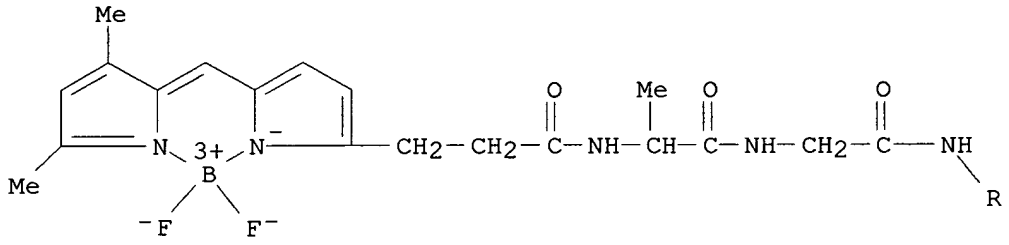


PAGE 2-A



PAGE 3-A





PAGE 4-A

● H^+

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 59 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:405121 HCAPLUS
DOCUMENT NUMBER: 131:54725
TITLE: Homogeneous detection of a target through nucleic acid ligand-ligand beacon interaction
INVENTOR(S): Jayasena, Sumedha; Gold, Larry
PATENT ASSIGNEE(S): Nexstar Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9931276	A1	19990624	WO 1998-US26599	19981215

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 5989823	A	19991123	US 1998-157206	19980918
AU 9939091	A1	19990705	AU 1999-39091	19981215
EP 1049803	A1	20001108	EP 1998-967067	19981215

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

US 6177555	B1	20010123	US 1999-447863	19991123
US 6261783	B1	20010717	US 2000-581326	20000811
US 2001055773	A1	20011227	US 2001-907074	20010717
US 6531286	B2	20030311		
US 2003219803	A1	20031127	US 2003-386099	20030310

PRIORITY APPLN. INFO.:

US 1997-68135P	P	19971215
US 1998-157206	A	19980918
WO 1998-US26599	W	19981215
US 2000-581326	A1	20000811
US 2001-907074	A1	20010717

AB A homogeneous assay that utilizes mol. beacons as the reporter and nucleic acid ligands as the sensor is described. This assay, called the ligand beacon assay, is for the detection of target mols. in a test mixt. The concept of the ligand beacon assay was tested using several proteins to which high affinity and specific nucleic acid ligands are available. The assay specifically detects the mol. target that binds the nucleic acid ligand with high affinity and specificity. The range of the assay is dictated by the concn. of the nucleic acid ligand/ligand beacon pair used in the assay. Target proteins were detected in buffer as well as in plasma, expanding its applicability to clin. use. This is a simple to use and fast assay format with the potential for automation for high throughput screening applications.

IC ICM C12Q001-68
ICS C07H021-04

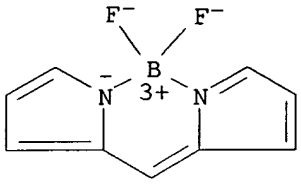
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 6, 9

IT 91-64-5, Coumarin 2321-07-5, Fluorescein 6268-49-1 50402-56-7, EDANS 70281-37-7, Tetramethylrhodamine 82354-19-6, Texas Red 82446-52-4, Lucifer yellow **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(nucleic acid adduct; homogeneous assay using nucleic acid **ligand-ligand** beacon interaction)

IT **138026-71-8**, BODIPY
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(nucleic acid adduct; homogeneous assay using nucleic acid **ligand-ligand** beacon interaction)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 60 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:322897 HCAPLUS
DOCUMENT NUMBER: 131:141697
TITLE: Multifunctional Monolayer Assemblies for Reversible Direct Fluorescence Transduction of Protein-Ligand Interactions at Surfaces
AUTHOR(S): Sekar, Michael M. A.; Hampton, Philip D.; Buranda, Tione; Lopez, Gabriel P.
CORPORATE SOURCE: Departments of Chemical and Nuclear Engineering and Chemistry, University of New Mexico, Albuquerque, NM, 87131, USA
SOURCE: Journal of the American Chemical Society (1999), 121(22), 5135-5141
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This paper describes a convenient new method for prepg. functionalizable protein-resistant monolayers that can be used to incorporate ligands and protein-sensitive fluorescent reporter groups, and the use of these monolayers for the detection of protein-ligand interactions. BODIPY X-650/665, a diode laser compatible fluorophore, and biotin, a model ligand, have been used to transduce biospecific interactions between proteins and biotin at surfaces. Silicon wafers or quartz slides were coated with (3-aminopropyl)triethoxysilane, and treated with glutaraldehyde and then 2,2'-(ethylenedioxy)bis(ethylenediamine). The resultant surface layers are resistant to nonspecific protein adsorption and contain primary amine groups that are available for subsequent derivatization. Chem. modification of the amine-terminated monolayers thus obtained was accomplished using the N-hydroxysuccinimide active ester of BODIPY X-650/665 and biotin activated with Woodward's reagent K. Surfaces treated only with the BODIPY dye for long periods of time to produce a near monolayer coverage of the fluorophore exhibited a dramatic attenuation of the emission of the fluore upon nonspecific adsorption of protein (e.g., albumin). Nonspecific adsorption of proteins can be minimized by dilg. the fluore on the surface. Incorporation of a biospecific ligand (i.e., biotin) and the BODIPY fluore in mixed monolayers by serial chem. modification of amine-terminated monolayers yielded surfaces that can be used for fluorescence transduction of biospecific protein adsorption. Specific binding of streptavidin and anti-biotin was detected by a decrease in both the intensity and excited-state lifetime of the fluorescence of the BODIPY dye. Binding of anti-biotin to these surfaces is reversible. No significant change in the intensity was obsd. upon exposure of these surfaces to solns. of biotin-blocked streptavidin and anti-human IgG. Only a slight change in

intensity was obsd. upon exposure to bovine serum albumin. Phase angle measurements obtained at a single frequency (100 MHz) were used to detect the reversible binding of anti-biotin at the monolayer surface. These observations indicate that it is possible to construct architectures contg. ligands and fluores that can be used to detect binding events using lifetime-based measurements. These assemblies should be generalizable to study a wide variety of protein- and cell-surface interactions in biotechnol. applications.

CC 9-16 (Biochemical Methods)

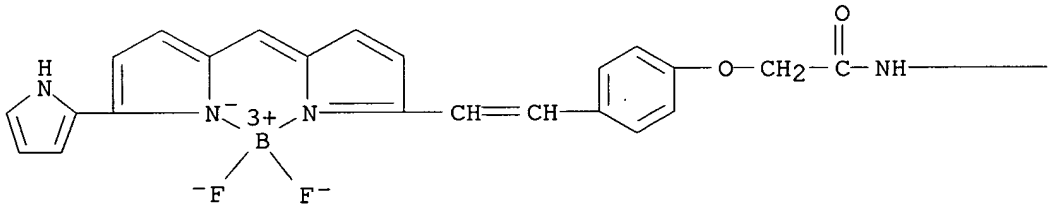
IT 58-85-5, Biotin 4156-16-5 **235439-04-0**, BODIPY X 650/665SE
RL: NUU (Other use, unclassified); USES (Uses)
(multifunctional monolayer assemblies for reversible direct fluorescence transduction of protein-**ligand** interactions at surfaces)

IT **235439-04-0**, BODIPY X 650/665SE
RL: NUU (Other use, unclassified); USES (Uses)
(multifunctional monolayer assemblies for reversible direct fluorescence transduction of protein-**ligand** interactions at surfaces)

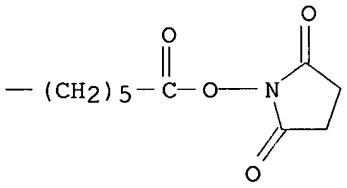
RN 235439-04-0 HCAPLUS

CN Boron, [2-[4-[2-[2-[([2,2'-bi-1H-pyrrol]-5-yl-.kappa.N1)methylene]-2H-pyrrol-5-yl-.kappa.N]ethenyl]phenoxy]-N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]acetamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 61 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:299538 HCAPLUS
DOCUMENT NUMBER: 130:321570
TITLE: Labeling of polymers via free radical mechanisms and sequencing of nucleic acids
INVENTOR(S): Guillet, James E.; Burke, Nicholas A. D.
PATENT ASSIGNEE(S): Can.

SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9922020	A2	19990506	WO 1998-CA981	19981022
WO 9922020	A3	19990715		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2305995	AA	19990506	CA 1998-2305995	19981022
AU 9895270	A1	19990517	AU 1998-95270	19981022
EP 1025263	A2	20000809	EP 1998-948653	19981022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001520893	T2	20011106	JP 2000-518110	19981022
US 6383750	B1	20020507	US 2000-530043	20001127

PRIORITY APPLN. INFO.: US 1997-64838P P 19971023
WO 1998-CA981 W 19981022

AB Polymers are randomly labeled with labeling groups such as fluorophores, by a process of creating free radicals on the polymer in the presence of a stable free radical, such as an aminoxyl compd., so that the stable free radical group bonds to the polymer in random fashion. Labeling groups such as fluorophores are attached to the stable free radical groups, before or after they are attached to the polymer. The process allows labeling of polymers having no reactive functional groups, it can also be applied to the labeling of nucleic acids, for use in conjunction with a PCR chain extension sequencing process, to allow the sequencing of target nucleic acids of high mol. wt. Thus, single-stranded DNA is labeled with fluorescamine, fluorescein isothiocyanate, or BODIPY-FL sulfosuccinimidyl ester via a free radical mechanism whereby hydrogen extn. from amino-TEMPO occurs by chem., photochem., or radiochem. means. The no. of labels is proportional to the length of each DNA mol. Unlike conventional sequencing methods, the fluorescence response is nearly independent of the no. of bases in the DNA chain. Furthermore, the fluorescence peaks are relatively sharp and should be resolvable up to 1400 bases, possibly longer if the electrophoretic conditions are optimized. Labeling of other synthetic polymers, such as poly(acrylic acid) or polystyrene, is also described.

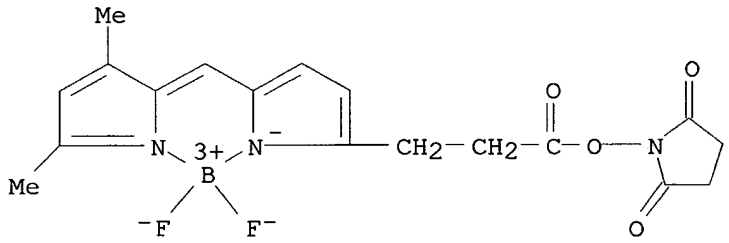
IC ICM C12Q001-68
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9, 35, 74
IT Nucleic acids
Polyamides, reactions
Polyesters, reactions
Polymers, reactions
Polyoxyalkylenes, reactions
Polysaccharides, reactions

Proteins, general, reactions
RNA
RL: RCT (Reactant); RACT (Reactant or reagent)
(labeling of polymers via free radical mechanisms and sequencing of nucleic acids)

IT **146616-66-2**, BODIPY FL, SE
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(BODIPY-FL,SE; labeling of polymers via free radical mechanisms and sequencing of nucleic acids)

IT **146616-66-2**, BODIPY FL, SE
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(BODIPY-FL,SE; labeling of polymers via free radical mechanisms and sequencing of nucleic acids)

RN 146616-66-2 HCAPLUS
CN Boron, [1-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropoxy]-2,5-pyrrolidinedionato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 62 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:117038 HCAPLUS
DOCUMENT NUMBER: 130:308547
TITLE: Patterning Ligands on Reactive SAMs by Microcontact Printing
AUTHOR(S): Lahiri, Joydeep; Ostuni, Emanuele; Whitesides, George M.
CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Harvard University, Cambridge, MA, 02138, USA
SOURCE: Langmuir (1999), 15(6), 2055-2060
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This report describes a method for patterning ligands onto mixed SAMs of alkanethiolates on gold by microcontact printing (.mu.CP). The mixed SAMs were made from thiols presenting terminal tri(ethylene glycol) groups HS(CH2)11(OCH2CH2)3OH, and terminal hexa(ethylene glycol)-CH2CO2H groups HS(CH2)11(OCH2CH2)6OCH2CO2H. Ligands were printed using a two-step procedure. The carboxylic acid groups of HS(CH2)11(OCH2CH2)6OCH2CO2H were first converted to reactive pentafluorophenyl esters. A freshly oxidized PDMS stamp, inked with a ligand derivatized with a primary amine, was then brought into contact with the activated SAM; in the areas of contact, the amine reacted with the activated ester and formed an amide. Two ligands,

biotin and benzenesulfonamide, were printed onto these SAMs. The formation of patterned SAMs presenting biotin ligands was detected by fluorescence microscopy of substrates that were incubated with a soln. of fluorescently labeled antibiotin antibody. The formation of patterned biotin was also detected using a sandwich expt.; in this expt., the SAM was incubated sequentially in solns. of streptavidin, protein G-biotin conjugate, and fluorescently labeled goat antirabbit IgG. The smallest features resolved in images obtained by these methods were squares with a 5 .mu.m side. Using surface plasmon resonance (SPR) to detect binding of antibiotin antibody to SAMs presenting biotin groups, the yield of coupling by .mu.CP was estd. to be .apprx.90% of that obtained by immersion. Printing of the benzenesulfonamide ligand was detected by binding of carbonic anhydrase (CA) to the sulfonamide-derivatized SAMs; the yield of coupling, as estd. by SPR, was .apprx. 75% of that obtained by immersion. For both ligands, oxidn. of the PDMS stamp before inking was found to be crit. for good coupling yields.

CC 9-1 (Biochemical Methods)

IT **Proteins, specific or class**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(G; patterning ligands on reactive SAMs by microcontact printing)

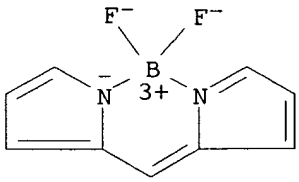
IT **Glass,** uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(support for SAM; patterning ligands on reactive SAMs by microcontact printing)

IT **138026-71-8D,** Bodipy, conjugate with anti IgG
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(patterning **ligands** on reactive SAMs by microcontact printing)

IT **138026-71-8D,** Bodipy, conjugate with anti IgG
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(patterning **ligands** on reactive SAMs by microcontact printing)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 63 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:113879 HCAPLUS
DOCUMENT NUMBER: 130:179641
TITLE: Square wave polarization function in regenerable biosensor using total internal reflection fluorescence with electrochemical control
INVENTOR(S): Asanov, Alexander N.; Wilson, W. William; Oldham,

Philip B.
PATENT ASSIGNEE(S): The UAB Research Foundation, USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

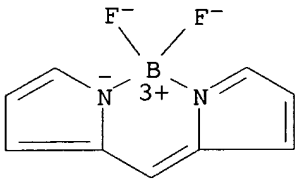
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906835	A1	19990211	WO 1997-US13500	19970731
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9739029	A1	19990222	AU 1997-39029	19970731
US 6511854	B1	20030128	US 2000-463800	20000612

PRIORITY APPLN. INFO.: WO 1997-US13500 A 19970731

AB An improved electrochem. method is disclosed for disassocg. a biol. binding partner from a corresponding second biol. binding partner assocd. with a waveguide surface, the electrochem. method involving the application of an elec. potential to the waveguide surface. The improvement comprises applying the elec. potential to the waveguide surface as a square wave polarization function. Preferably, the waveguide surface is comprised of indium tin oxide (ITO). The biol. binding partners are selected from the group consisting of antigen-antibody, avidin-biotin, enzyme-substrate, cell receptor-substrate/analog, antibody/anti-antibody, DNA, RNA, and fragments thereof. The antigen may be comprised of an epitope. The epitope is produced by a solid phase peptide synthesis performed on the waveguide surface. A biotinylated ITO surface was treated with labeled anti-biotin antibody. Use of a square wave polarization treatment provided reproducible conditions at the biotinylated sensor surface, suitable for construction of a reusable immunosensor.

IC ICM G01N033-551
ICS G01N033-552; G01N033-553
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 15, 73
IT 27072-45-3DP, FITC, conjugates with antibody or .gamma. globulin
138026-71-8DP, Bodipy, conjugates with **antibody** or .gamma. globulin
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(square wave polarization function in regenerable biosensor using total internal reflection fluorescence with electrochem. control)
IT **138026-71-8DP**, Bodipy, conjugates with **antibody** or .gamma. globulin
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(square wave polarization function in regenerable biosensor using total

internal reflection fluorescence with electrochem. control)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

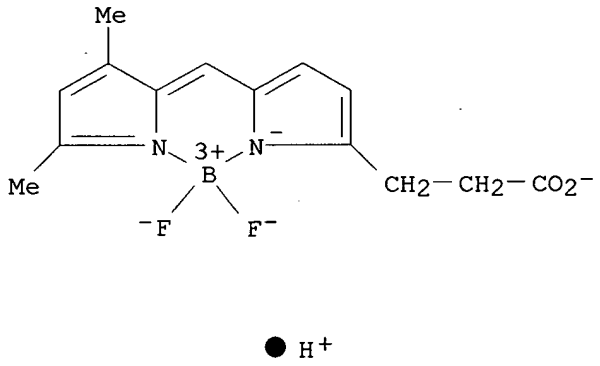
L27 ANSWER 64 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:579594 HCAPLUS
DOCUMENT NUMBER: 130:13026
TITLE: Inhibition of nonspecific binding of fluorescent-labeled antibodies to human eosinophils
AUTHOR(S): Mahmudi-Azer, S.; Lacy, P.; Bablitz, B.; Moqbel, R.
CORPORATE SOURCE: Pulmonary Research Group, University of Alberta, Edmonton, AB, Can.
SOURCE: Journal of Immunological Methods (1998), 217(1-2), 113-119
CODEN: JIMMBG; ISSN: 0022-1759
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Eosinophils and their products play a major role in inflammatory reactions assocd. with asthma and allergic diseases. There is a growing body of evidence that eosinophils synthesize, store, and release bioactive cytokines and chemokines with the potential to contribute to local inflammatory changes. Fluorescein isothiocyanate (FITC) has been widely used as an immunofluorescent conjugate for antibodies specific for detection of these mols. However, FITC is an ionic fluorochrome (neg. charged) which binds strongly to pos. charged eosinophil granule proteins. The authors developed new methods to prevent charge-based interactions of ionic fluorochromes with granule proteins, and optimized immunofluorescent staining techniques for eosinophils. An antibody to interleukin-6 (IL-6) was used to optimize this procedure for eosinophil-derived granule proteins. The authors attempted to block nonspecific binding of FITC-labeled anti-IL-6 using normal human IgG, fetal calf serum (FCS), bovine serum albumin (BSA), and goat, horse, and normal human sera at concns. ranging between 1-10%. Only human IgG (2%; 20 mg/mL) was able to reduce background fluorescence. These results were confirmed using Texas Red conjugates. The authors also used antibodies conjugated to a nonionic fluorochrome, BODIPY FL, to detect IL-6 in eosinophils. Unlike FITC, BODIPY FL-conjugated antibodies did not require strong blocking conditions (2% BSA). The authors recommend that a neutral fluorochrome (BODIPY FL) should be used for immunofluorescence studies in eosinophils. Alternatively, strong blocking conditions may be used to decrease background binding of FITC-conjugated antibodies.
CC 15-1 (Immunochemistry)

IT 27072-45-3, FITC **165599-63-3**, BODIPY FL
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal **antibody** conjugates; inhibition of nonspecific binding of fluorescent-labeled **antibodies** to human eosinophils in interleukin-6 detection by immunofluorescence)

IT **165599-63-3**, BODIPY FL
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(monoclonal **antibody** conjugates; inhibition of nonspecific binding of fluorescent-labeled **antibodies** to human eosinophils in interleukin-6 detection by immunofluorescence)

RN 165599-63-3 HCAPLUS

CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 65 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:541225 HCAPLUS
DOCUMENT NUMBER: 129:255117
TITLE: Cellular localization and pharmacological characterization of functioning .alpha.-1 adrenoceptors by fluorescent ligand binding and image analysis reveals identical binding properties of clustered and diffuse populations of receptors
AUTHOR(S): Daly, C. J.; Milligan, C. M.; Milligan, G.; Mackenzie, J. F.; Mcgrath, J. C.
CORPORATE SOURCE: Institute of Biomedical and Life Sciences, Clinical Research Initiative and Division of Neuroscience and Biomedical Systems, University of Glasgow, Glasgow, G12 8QQ, UK
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1998), 286(2), 984-990
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A fluorescent quinazoline deriv. was shown to retain high affinity for, and act as a competitive antagonist at, .alpha.-1 adrenoceptors. This allowed it to be used in live cells to localize receptors and to quantify

receptor binding characteristics. The technique was demonstrated and validated on fibroblasts transfected with a recombinant alpha-1d adrenoceptor. Using confocal laser scanning microscopy and image anal. both diffuse and clustered binding sites were found: their binding characteristics were assessed and found comparable to radioligand binding on membrane prepns. This approach should have widespread applicability in nonradioactive assays detg. the location, quantity and binding properties of receptors and other biol. mols. on live tissue.

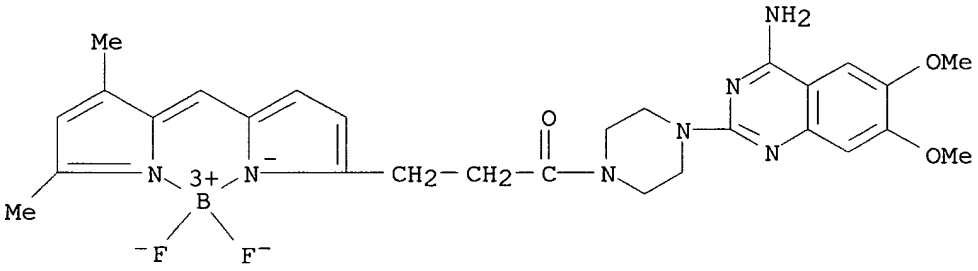
CC 2-1 (Mammalian Hormones)

IT **175799-93-6**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cellular localization and pharmacol. characterization of functioning .alpha.-1 adrenoceptors by fluorescent **ligand** binding and image anal. reveals identical binding properties of clustered and diffuse populations of receptors)

IT **175799-93-6**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(cellular localization and pharmacol. characterization of functioning .alpha.-1 adrenoceptors by fluorescent **ligand** binding and image anal. reveals identical binding properties of clustered and diffuse populations of receptors)

RN 175799-93-6 HCAPLUS

CN Boron, [1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]piperazinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 66 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:508332 HCAPLUS

DOCUMENT NUMBER: 129:257147

TITLE: Fluorescent ligand binding in slices and culture systems

AUTHOR(S): Ray, Mikelene H.; Ariano, Marjorie A.

CORPORATE SOURCE: Department of Neuroscience, The Chicago Medical School, North Chicago, IL, USA

SOURCE: Receptor Localization (1998), 31-45. Editor(s): Ariano, Marjorie A. Wiley-Liss: New York, N. Y. CODEN: 66MDAH

DOCUMENT TYPE: Conference

LANGUAGE: English

AB The study discusses the application of fluoroprobes in brain slices and cell cultures to establish the cellular distribution of the two pharmacol. defined families of dopamine (DA) receptors, e.g. the D1 and D2 receptor classes. In contrast to radiolabeled ligands, fluoroprobes allow rapid detection of receptor binding sites since they do not require an amplification medium such as nuclear track emulsions and films. Moreover, the fluorescent binding method may be adapted to distinguish two different binding sites simultaneously.

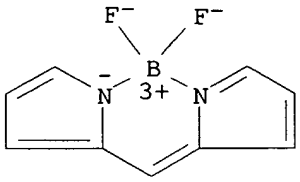
CC 9-4 (Biochemical Methods)
Section cross-reference(s): 14

IT 81-88-9D, reaction product with NAPS or Sch 23390 91-64-5D, Coumarin, reaction product with NAPS or Sch 23390 2321-07-5D, Fluorescein, reaction product with NAPS or Sch 23390 82354-19-6D, Texas red, reaction product with NAPS or Sch 23390 87075-17-0D, Sch 23390, derivatized with fluorescent dyes 87134-87-0D, derivs. 94452-27-4D, NAPS, derivatized with fluorescent dyes **138026-71-8D**, Bodipy, reaction product with NAPS or Sch 23390
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent **ligand** binding in slices and culture systems)

IT **138026-71-8D**, Bodipy, reaction product with NAPS or Sch 23390
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent **ligand** binding in slices and culture systems)

RN 138026-71-8 HCAPLUS

CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 67 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:157360 HCAPLUS
DOCUMENT NUMBER: 128:215257
TITLE: Dipyrrometheneboron difluoride labeled fluorescent microparticles
INVENTOR(S): Haugland, Richard P.; Haugland, Rosaria P.; Brinkley, John Michael; Kang, Hee Chol; Kuhn, Michael; Wells, K. Sam; Zhang, Yu Zhong
PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
SOURCE: U.S., 17 pp., Cont.-in-part of U.S. Ser. No. 629,466. abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 5723218	A	19980303	US 1995-484151	19950607
US 5227487	A	19930713	US 1990-509360	19900416
US 5274113	A	19931228	US 1991-786767	19911101
US 5453517	A	19950926	US 1992-843360	19920225
US 5326692	A	19940705	US 1992-882299	19920513
US 5326692	B1	19960430		
US 5442045	A	19950815	US 1993-28319	19930308
US 5405975	A	19950411	US 1993-38918	19930329
US 5451663	A	19950919	US 1993-45758	19930408
US 5433896	A	19950718	US 1994-246790	19940520
US 5459276	A	19951017	US 1994-246847	19940520
US 5501980	A	19960326	US 1994-247013	19940520
US 5573909	A	19961112	US 1994-247108	19940520
US 5516864	A	19960514	US 1995-375360	19950119
US 5648270	A	19970715	US 1995-384945	19950206
JP 2004002851	A2	20040108	JP 2003-128429	20030506

PRIORITY APPLN. INFO.:

US 1990-509360	A3	19900416
US 1990-629466	B2	19901218
US 1991-786767	A3	19911101
US 1992-843360	A2	19920225
US 1992-882299	A2	19920513
US 1993-28319	A2	19930308
US 1993-38918	A3	19930329
US 1993-45758	A2	19930408
US 1994-246790	A2	19940520
US 1994-246847	A2	19940520
US 1994-247013	A2	19940520
US 1994-247108	A2	19940520
US 1995-375360	A2	19950119
US 1995-384945	A2	19950206
JP 1993-502684	A3	19930507

OTHER SOURCE(S): MARPAT 128:215257

AB The invention is a novel fluorescently labeled microparticle, where the microparticle internally incorporates at least one dipyrromethene boron difluoride dye. Appropriate selection of substituents results in dipyrromethene boron difluoride derivs. that, when incorporated into polymer microparticles, give the desired excitation and emission wavelengths. The spectral characteristics of the labeling dyes in liq. are not greatly changed when the dye is incorporated into the particles, and the spectral excitation and emission wavelengths are compatible with commonly used filter sets. Other embodiments of the fluorescent microparticles include addnl. dyes and/or bioreactive substances. Thus, red fluorescent polystyrene microspheres were prepd. by the coupling of a dipyrromethene boron difluoride deriv. with the polymer microspheres. The fluorescent microparticles thus obtained were coupled to avidin to give the reagent which bound to a protein-biotin conjugate.

IC ICM B32B027-18
NCL 428402000
CC 9-7 (Biochemical Methods)
Section cross-reference(s): 1, 38
IT Antibodies
Avidins
Biochemical molecules
Carbohydrates, analysis
Drugs
Nucleic acids

Peptides, analysis
Proteins, general, analysis
RL: ANT (Analyte); ANST (Analytical study)
(dipyrromethene boron difluoride-labeled fluorescent polymer microparticles in anal.)

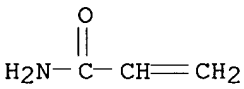
IT 9002-85-1, Poly(vinylidene chloride) 9002-86-2, PVC 9003-01-4 **9003-05-8**, Polyacrylamide 9003-17-2, Polybutadiene 9003-20-7, PVA 9003-31-0, Polyisoprene 9003-47-8, Poly(vinylpyridine) 9003-53-6, Polystyrene 9003-69-4, Poly(divinylbenzene) 9011-14-7, PMMA 9017-21-4, Poly(vinyltoluene) 9080-67-5, Poly(vinylbenzyl chloride) **21658-70-8** 25014-41-9, Polyacrylonitrile 39350-27-1, Polybromostyrene **121207-31-6 126368-67-0 148185-57-3 152072-93-0 154793-49-4 154793-50-7** 154827-68-6 **204376-56-7 204376-57-8**
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(dipyrromethene boron difluoride-labeled fluorescent polymer microparticles in anal.)

IT **9003-05-8**, Polyacrylamide **21658-70-8 121207-31-6 126368-67-0 148185-57-3 152072-93-0 154793-49-4 154793-50-7 204376-56-7 204376-57-8**
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(dipyrromethene boron difluoride-labeled fluorescent polymer microparticles in anal.)

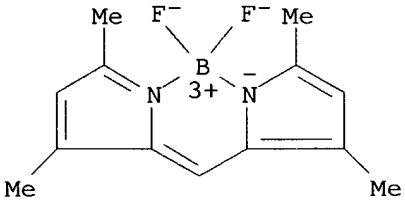
RN 9003-05-8 HCAPLUS
CN 2-Propenamide, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1
CMF C3 H5 N O



RN 21658-70-8 HCAPLUS
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 121207-31-6 HCAPLUS
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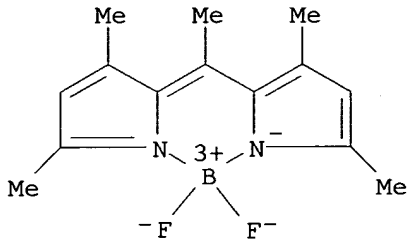
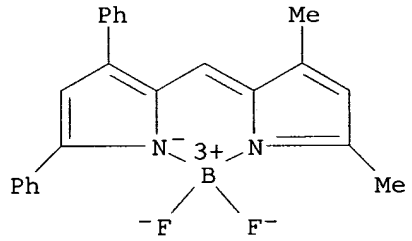
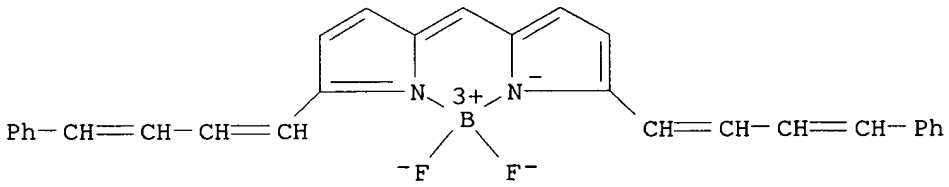
dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



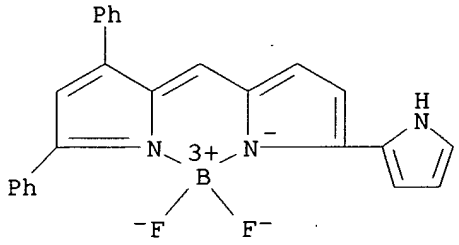
RN 126368-67-0 HCAPLUS
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-diphenyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



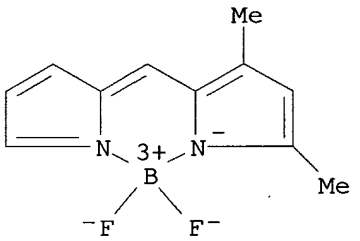
RN 148185-57-3 HCAPLUS
CN Boron, difluoro[2-(4-phenyl-1,3-butadienyl)-5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



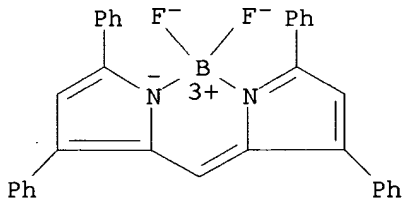
RN 152072-93-0 HCAPLUS
CN Boron, [5-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-2,2'-bi-1H-pyrrolato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



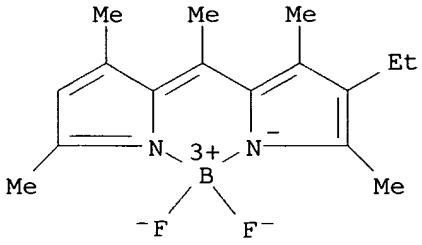
RN 154793-49-4 HCAPLUS
CN Boron, [3,5-dimethyl-2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



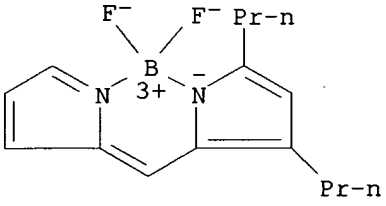
RN 154793-50-7 HCAPLUS
CN Boron, [2-[(3,5-diphenyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-diphenyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 204376-56-7 HCAPLUS
CN Boron, [2-[1-(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)ethyl]-4-ethyl-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 204376-57-8 HCAPLUS
CN Boron, [3,5-dipropyl-2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

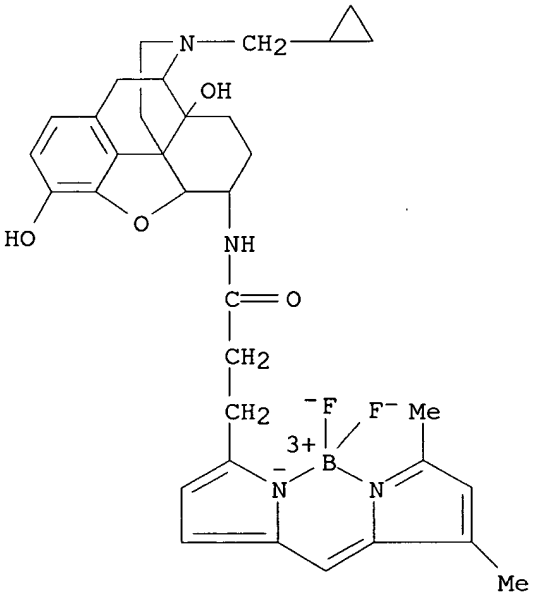
L27 ANSWER 68 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:775594 HCAPLUS
DOCUMENT NUMBER: 128:70868
TITLE: Synthesis and characterization of 4,4-difluoro-4-bora-3a,4a-diaza-s-indacene (BODIPY)-labeled fluorescent ligands for the mu opioid receptor
AUTHOR(S): Emmerson, Paul J.; Archer, Sydney; El-Hamouly, Wageeh; Mansour, Alfred; Akil, Huda; Medzihradsky, Fedor
CORPORATE SOURCE: DEPARTMENT OF PHARMACOLOGY, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL, ANN ARBOR, MI, 48109, USA
SOURCE: Biochemical Pharmacology (1997), 54(12), 1315-1322
CODEN: BCPCA6; ISSN: 0006-2952
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of opioid ligands utilizing the 4,4-difluoro-4-bora-3a,4a-diaza-s-indacene (BODIPY) fluorophores 4,4-difluoro-5,7-dimethyl-4-bora-3a,4a-diaza-s-indacene-3-propionic acid or 4,4-difluoro-5-(4-phenyl-1,3-butadienyl)-4-bora-3a,4a-diaza-s-indacene-3-propionic acid were synthesized and characterized for their ability to act as a suitable fluorescent label for the mu opioid receptor. All compds. displaced the mu opioid receptor binding of [3H]Tyr-D-Ala-Gly-(Me)Phe-Gly-ol in monkey brain membranes with high affinity. The binding of fluorescent ligands to delta and kappa receptors was highly variable. 5,7-Dimethyl-BODIPY naltrexamine, "6-BNX," displayed subnanomolar affinities for the mu and kappa opioid receptors (Ki 0.07 and 0.43 nM, resp.) and nanomolar affinity at the delta (Ki 1.4 nM) receptor. Using fluorescence spectroscopy, the binding of 6-BNX in membranes from C6 glioma cells transfected with the cloned mu opioid receptor was investigated. In these membranes contg. a high receptor d. (10-80 pmol/mg protein), 6-BNX labeling was saturable, mu opioid specific, stereoselective (as detd. with the isomers dextrorphan and levorphanol), and more than 90% specific. The results describe a series of newly developed fluorescent ligands for the mu opioid receptor and the use of one of these ligands as a label for the cloned mu receptor. These ligands provide a new approach for studying the structural and biophys. nature of opioid receptors.
CC 2-1 (Mammalian Hormones)
Section cross-reference(s): 8, 29
IT **200713-85-5P 200713-86-6P 200713-87-7P**
RL: ARG (Analytical reagent use); BPR (Biological process); BSU

(Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(difluoroboradiazaindacene-labeled fluorescent .mu.-opioid receptor **ligand** synthesis and binding characterization)

IT 67025-97-2, .beta.-Naltrexamine 152660-69-0 **165599-63-3** **178458-24-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(in difluoroboradiazaindacene-labeled fluorescent .mu.-opioid receptor **ligand** synthesis)

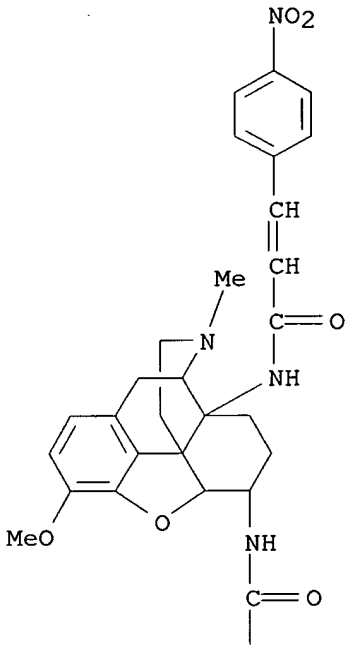
IT **200713-85-5P 200713-86-6P 200713-87-7P**
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(difluoroboradiazaindacene-labeled fluorescent .mu.-opioid receptor **ligand** synthesis and binding characterization)

RN 200713-85-5 HCAPLUS
CN Boron, [N-[(5.alpha.,6.beta.)-17-(cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxymorphinan-6-yl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

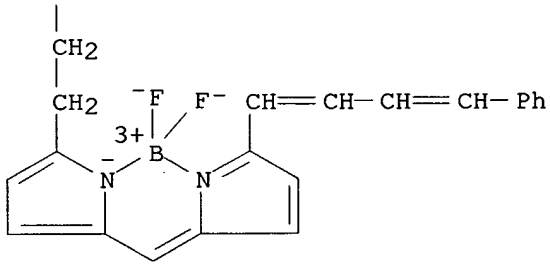


RN 200713-86-6 HCAPLUS
CN Boron, [N-[(5.alpha.,6.beta.)-4,5-epoxy-3-methoxy-17-methyl-14-[[3-(4-nitrophenyl)-1-oxo-2-propenyl]amino]morphinan-6-yl]-5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

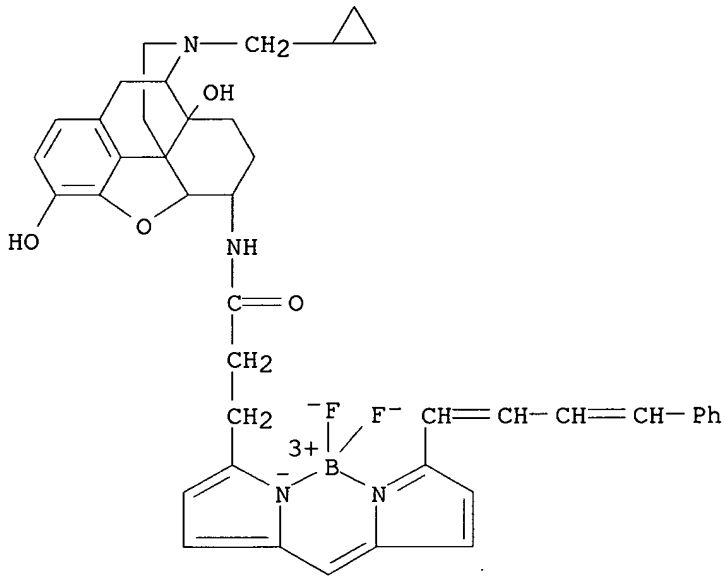
PAGE 1-A



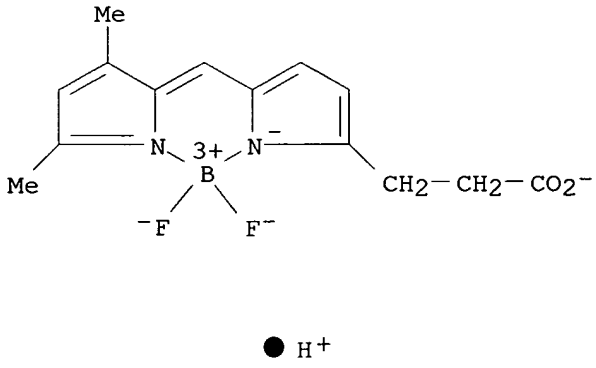
PAGE 2-A



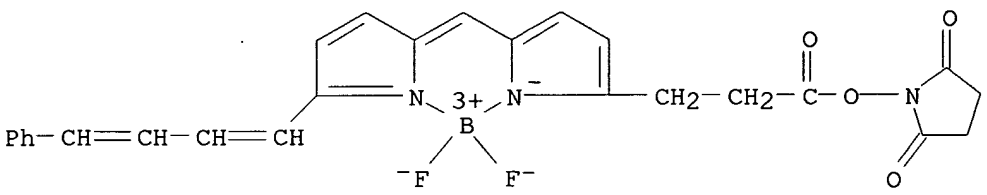
RN 200713-87-7 HCAPLUS
CN Boron, [N-[(5.alpha.,6.beta.)-17-(cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxymorphinan-6-yl]-5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IT **165599-63-3 178458-24-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(in difluoroboradiazaindacene-labeled fluorescent .mu.-opioid receptor **ligand** synthesis)
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



RN 178458-24-7 HCAPLUS
CN Boron, difluoro[1-[1-oxo-3-[5-[[5-(4-phenyl-1,3-butadienyl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propoxy]-2,5-pyrrolidinedionato]-, (T-4)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 69 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:224043 HCAPLUS
DOCUMENT NUMBER: 126:209302
TITLE: Cell sorting with fluorescent peptides
INVENTOR(S): Faure, Marie-Pierre; Mcdonald, Ken; Beaudet, Alain
PATENT ASSIGNEE(S): Advanced Bioconcept, Inc., Can.
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9704311	A2	19970206	WO 1996-CA491	19960719
WO 9704311	A3	19970403		
W: AU, BR, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5760188	A	19980602	US 1996-591898	19960125
AU 9663522	A1	19970218	AU 1996-63522	19960719

PRIORITY APPLN. INFO.:
US 1995-504856 A 19950720
US 1996-591898 A 19960125
US 1996-640016 A 19960430
US 1992-997720 B1 19921231
US 1995-402777 B1 19950309
WO 1996-CA491 W 19960719

AB A method for sorting cells included in a cell population is described. The method includes the step of first exposing the cell population to a biol. active fluorescent peptide contg. peptide and light-emitting moieties. A first group of cells in the cell population are then labeled when the peptide of the biol. active fluorescent peptide binds to a corresponding receptor contained on (or in) each cell in the first group of cells. The first group of cells or a group of cells excluding the first group of cells are then sorted from the cell population.

IC ICM G01N033-52
ICS C12N005-00
CC 9-16 (Biochemical Methods)
IT **Proteins, specific or class**
RL: NUU (Other use, unclassified); USES (Uses)
(GTP-binding; cell sorting with fluorescent peptides)
IT **Peptides, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(Gonadotropin-assocd.; cell sorting with fluorescent peptides)
IT 50-56-6, Oxytocin, uses 58-82-2, Bradykinin 81-88-9 107-22-2,

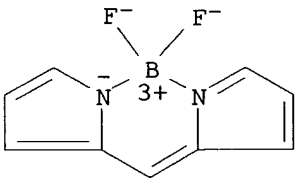
Glyoxal 123-56-8D, Succinimide, ester derivs 144-48-9, Iodoacetamide 302-01-2, Hydrazine, uses 302-04-5, Isothiocyanate, uses 541-59-3, Maleimide 1325-87-7 2321-07-5, Fluorescein 9002-60-2, Adrenocorticotrophic hormone, uses 9002-64-6, Parathyroid hormone 9002-76-0, Gastrin 9002-79-3, Melanocyte-stimulating hormone 9004-10-8, Insulin, uses 9007-12-9, Calcitonin 9007-92-5, Glucagon, uses 9011-97-6, Cholecystokinin 9015-71-8, Corticotropin-releasing factor 9034-39-3, Growth hormone releasing factor 9034-40-6, Luteinizing hormone releasing hormone 10199-89-0 11000-17-2, Vasopressin 24305-27-9, Thyroid-releasing hormone 25535-16-4, Propidium iodide 33507-63-0, Substance P 37221-79-7, Vasoactive intestinal polypeptide 47165-04-8, DAPI 51110-01-1, Somatostatin 57285-09-3, Inhibin 59763-91-6, Pancreatic polypeptide 60118-07-2, Endorphin 74135-04-9, Morphiceptin 74913-18-1, Dynorphin 77614-16-5, Dermorphin 80043-53-4, Gastrin-releasing peptide 82354-19-6, Texas red 82446-52-4, Lucifer yellow 82785-45-3, Neuropeptide-Y 85568-32-7, Casomorphin **85637-73-6**, Atrial natriuretic peptide 105953-91-1, Neuromedin 106388-42-5, Peptide YY 106602-62-4, Amylin 113041-69-3, Magainin 116243-73-3, Endothelin 119418-04-1, Galanin 120718-52-7 **138026-71-8**, Bodipy 143491-54-7
RL: NUU (Other use, unclassified); USES (Uses)
(cell sorting with fluorescent peptides)

IT **85637-73-6**, Atrial natriuretic peptide **138026-71-8**, Bodipy
RL: NUU (Other use, unclassified); USES (Uses)
(cell sorting with fluorescent peptides)

RN 85637-73-6 HCAPLUS
CN Atrial natriuretic peptide (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 70 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:97463 HCAPLUS
DOCUMENT NUMBER: 126:181576
TITLE: Receptor-induced internalization of selective peptidic .mu. and .delta. opioid ligands
AUTHOR(S): Gaudriault, Georges; Nouel, Dominique; Farra, Claude Dal; Beaudet, Alain; Vincent, Jean-Pierre
CORPORATE SOURCE: Cent. Natl. Recherche Scientifique-UPR 411, Inst. Pharm. Mol. Cellulaire, Valbonne, 06560, Fr.
SOURCE: Journal of Biological Chemistry (1997), 272(5), 2880-2888
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The binding and internalization of radioiodinated and fluorescent .mu. and .delta. opioid peptides in mammalian cells were quant. studied by biochem. techniques and directly visualized by confocal microscopy. The labeled peptides were prepd. by inserting either a 125I-Bolton-Hunter group or a fluorescent probe into the C-terminal part of 5-aminopentylamide derivs. of deltorphin-I and [Lys7]dermorphin. The purified derivs. kept most of their specificity and selectivity toward .delta. and .mu. opioid receptors, resp. Biochem. and confocal microscopy data showed that both .mu. and .delta. opioid peptides were internalized in mammalian cells transfected with the corresponding opioid receptor according to a receptor-mediated mechanism. The internalization process was time- and temp.-dependent and was completely blocked by the endocytosis inhibitor phenylarsine oxide. Internalization of both .delta. and .mu. ligands occurred from a single large cap at one pole of the cell, indicating that polymn. of ligand-receptor complexes preceded internalization. Finally, green and red fluorescent analogs of deltorphin-I and [Lys7]dermorphin, resp., were found to internalize through partly distinct endocytic pathways in cells co-transfected with .mu. and .delta. receptors, suggesting that each of these receptors interacts with distinct proteins mediating intracellular sorting and trafficking.

CC 2-5 (Mammalian Hormones)

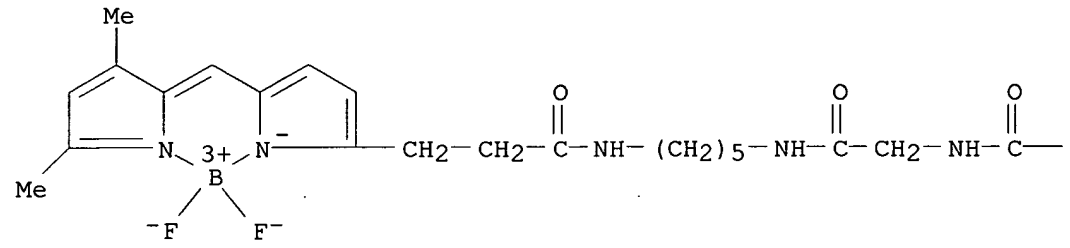
IT 122752-15-2, Deltorphin-I 129232-88-8, [Lys7]dermorphin
187613-11-2 187613-15-6 187613-35-0 187613-39-4
202075-15-8 202075-16-9 202075-17-0
202075-18-1
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(receptor-induced internalization of selective peptidic .mu. and .delta. opioid **ligands**)

IT **187613-11-2 187613-15-6 202075-15-8**
202075-16-9 202075-17-0 202075-18-1
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(receptor-induced internalization of selective peptidic .mu. and .delta. opioid **ligands**)

RN 187613-11-2 HCAPLUS

CN Borate(1-), [7-[N-[5-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]pentyl]glycinamide]deltorphin C-ato(2-)]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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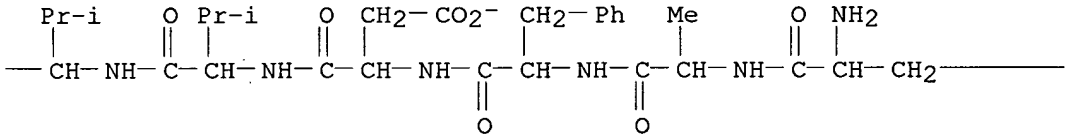

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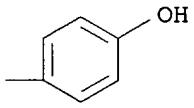
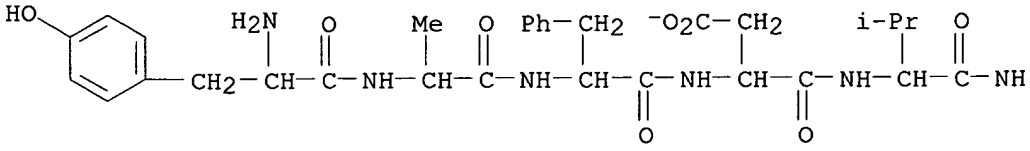


RN 187613-15-6 HCAPLUS
CN Borate(1-), difluoro[7-[N-[5-[[1-oxo-3-[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propyl]amino]pentyl]glycinamide]deltorphin C-ato(2-)]-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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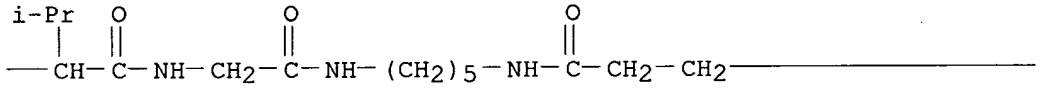

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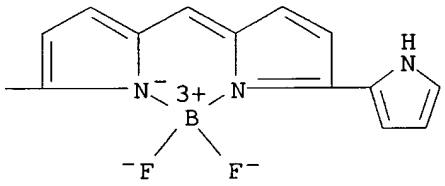
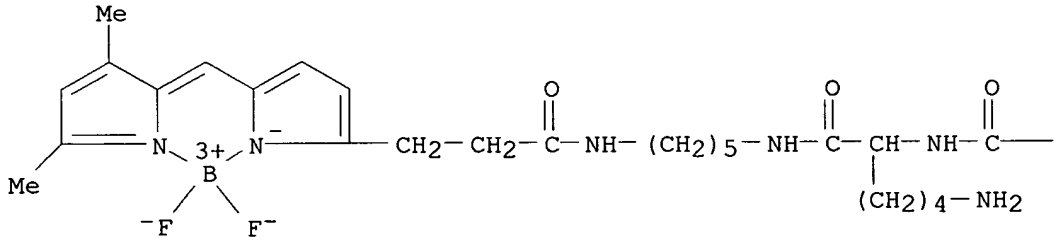


RN 202075-15-8 HCAPLUS
CN Boron, [7-[N-[5-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]pentyl]-L-lysinamide]dermorphinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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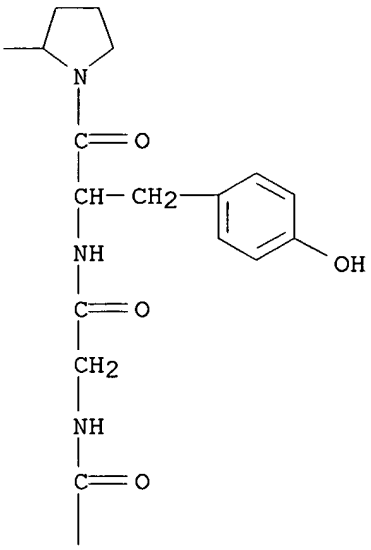

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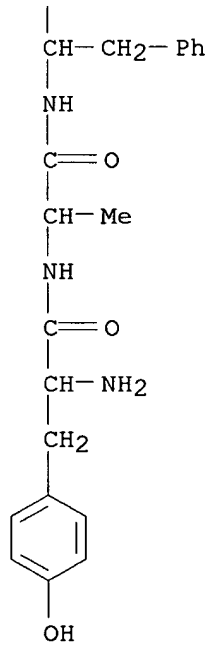
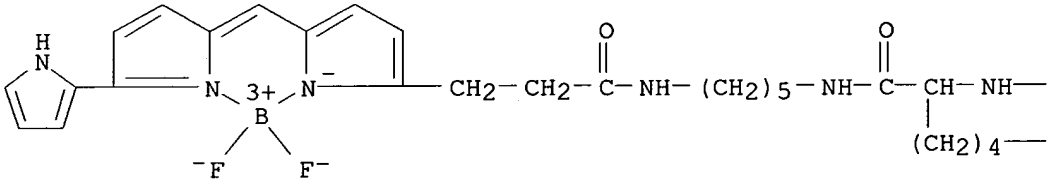


RN 202075-16-9 HCAPLUS
CN Boron, difluoro[7-[N-[5-[[1-oxo-3-[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propyl]amino]pentyl]-L-

lysinamide]dermorphinato]-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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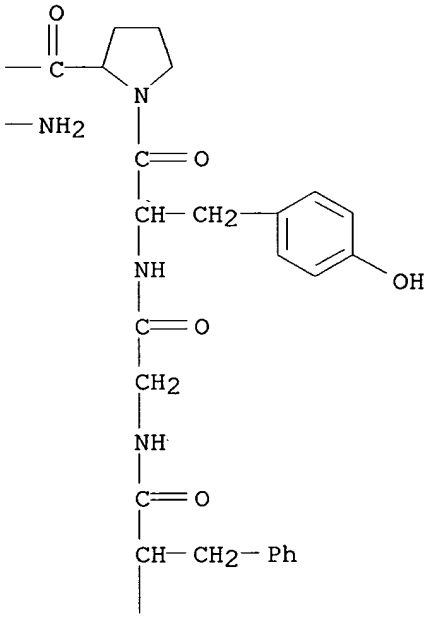

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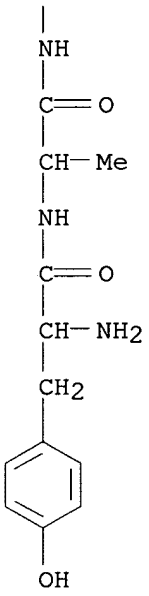
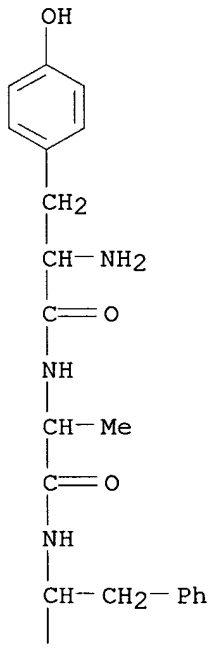


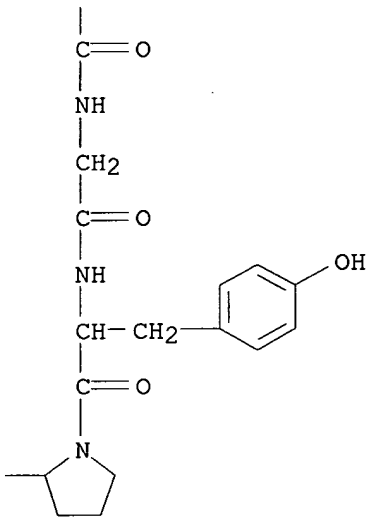
RN 202075-17-0 HCAPLUS
CN Boron, [7-[N-(5-aminopentyl)-N6-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]-L-lysinamide]dermorphinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-B



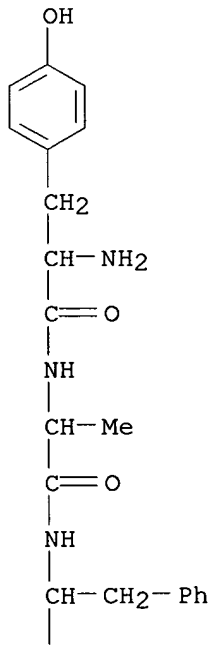
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PAGE 2-B

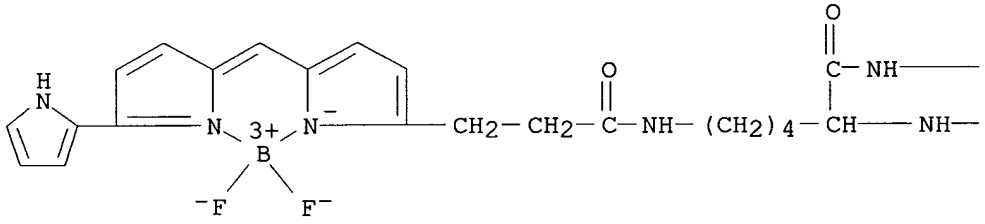


RN 202075-18-1 HCAPLUS
CN Boron, [7-[N-(5-aminopentyl)-N6-[1-oxo-3-[5-[[5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-.kappa.N]methyl]-1H-pyrrol-2-yl-.kappa.N]propyl]-L-lysinamide]dermorphinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

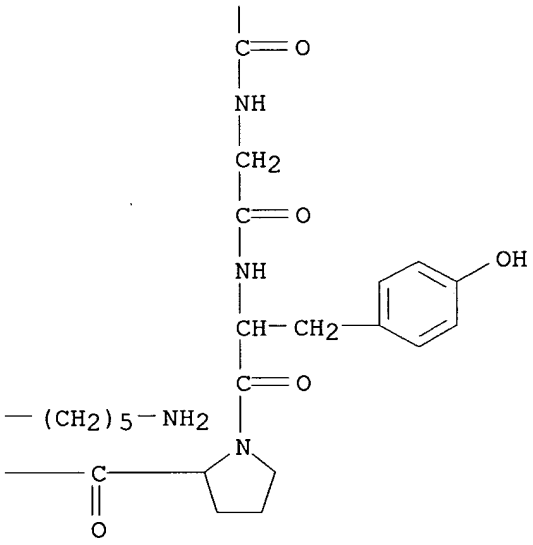
PAGE 1-B



PAGE 2-A



PAGE 2-B



REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 71 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:34059 HCAPLUS
DOCUMENT NUMBER: 126:57117
TITLE: Methods for the production of platinum-based linkers between labels and bio-organic molecules, for labeling

bio-organic molecules, for detecting biological substances of interest and diagnostic test kits

INVENTOR(S): Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria; Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna

PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.; Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria; Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna

SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635696	A1	19961114	WO 1996-NL198	19960508
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2218815	AA	19961114	CA 1996-2218815	19960508
AU 9657040	A1	19961129	AU 1996-57040	19960508
AU 724320	B2	20000914		
JP 11505533	T2	19990521	JP 1996-533965	19960508
NZ 307633	A	20000128	NZ 1996-307633	19960508
EP 1019420	A1	20000719	EP 1996-915218	19960508
EP 1019420	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 246696	E	20030815	AT 1996-915218	19960508
PT 1019420	T	20031231	PT 1996-96915218	19960508

PRIORITY APPLN. INFO.: EP 1995-201197 A 19950509
WO 1996-NL198 W 19960508

OTHER SOURCE(S): CASREACT 126:57117; MARPAT 126:57117

AB The present invention provides improved methods of producing platinum compds., which are very suitable for producing labeled substances, which can be used to detect specific mols. of interest. The platinum coordination compds. have two reactive groups of which one is replaced by a label and the other one can be replaced by a substance to be labeled. Prodn. of labeled substances is very much improved by selection of the right starting materials and producing the right intermediates. The efficiency of labeling is very much improved, thereby enabling the prodn. of labeling kits which are also a part of the present invention. The methods can be used for the detection of, e.g., various microorganisms and gene translocations/abnormalities.

IC ICM C07F015-00
ICS G01N033-58

CC 9-15 (Biochemical Methods)
Section cross-reference(s): 3, 15

IT **Proteins, specific or class**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(A; platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

IT **Proteins, specific or class**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(G; platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

IT Antibodies
Proteins, specific or class
RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(labeled with platinum compds.; platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

IT **Plastics,** analysis
Polyamide fibers, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

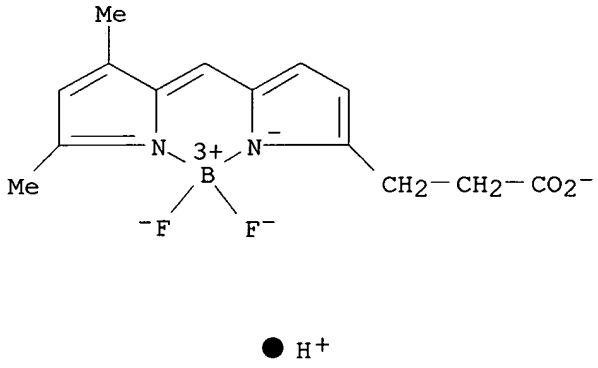
IT Biochemical molecules
Biopolymers
Oligonucleotides
Peptides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

IT 462-94-2DP, Cadaverine, complexes with platinum ethylenediamine and tetramethylrhodamine 7440-06-4DP, Platinum, complexes, preparation 14096-51-6P 26093-31-2DP, complexes with platinum ethylenediamine 27599-63-9DP, Fluoresceinamine, complexes with platinum ethylenediamine 50475-22-4P 62669-70-9DP, Rhodamine 123, complexes with platinum ethylenediamine 70281-37-7DP, Tetramethylrhodamine, complexes with platinum ethylenediamine and cadaverine 75900-75-3DP, complexes with platinum ethylenediamine 82779-14-4DP, complexes with platinum ethylenediamine 138039-53-9DP, complexes with platinum ethylenediamine **165599-63-3DP,** complexes with platinum ethylenediamine 184957-32-2P 184957-34-4P 184957-38-8P 184957-40-2DP, complexes with platinum ethylenediamine
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

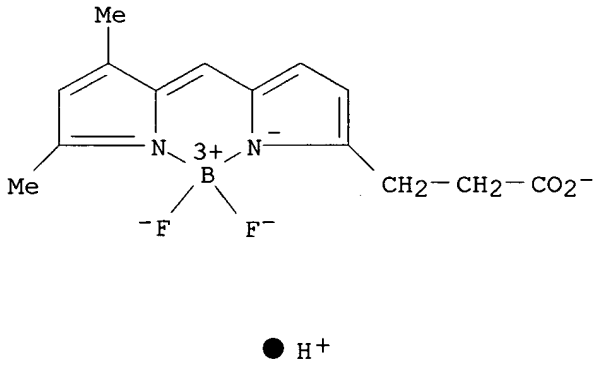
IT 56-87-1D, Lysine, complexes with platinum ethylenediamine and digoxigenin 107-15-3, 1,2-Ethanediamine, reactions 1672-46-4D, Digoxigenin, complexes with lysine and platinum ethylenediamine 7447-40-7, Potassium chloride, reactions 7647-14-5, Sodium chloride (NaCl), reactions 7681-11-0, Potassium iodide, reactions 7761-88-8, Silver nitrate, reactions 10025-99-7, Potassium tetrachloroplatinate 26093-31-2, 7-Amino-4-methylcoumarin 27599-63-9 28217-24-5 62669-70-9, Rhodamine 123 75900-75-3 82779-14-4 136910-27-5, Biocytin X 138039-53-9, Cascade Blue Cadaverine **165599-63-3,** BODIPY 530/550 184957-35-5 184957-40-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)

IT **165599-63-3DP,** complexes with platinum ethylenediamine
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic

preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



IT **165599-63-3**, BODIPY 530/550
RL: RCT (Reactant); RACT (Reactant or reagent)
(platinum-based linkers prepn. for labeling bioorg. mols. for detection and diagnosis)
RN 165599-63-3 HCAPLUS
CN Borate(1-), [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato(2-)-.kappa.N1]difluoro-, hydrogen, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 72 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:748428 HCAPLUS
DOCUMENT NUMBER: 126:16491
TITLE: Difference **gel electrophoresis** using matched multiple dyes
INVENTOR(S): Minden, Jonathan; Waggoner, Alan

PATENT ASSIGNEE(S): Carnegie Mellon University, USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9633406	A1	19961024	WO 1996-US5435	19960419
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6127134	A	20001003	US 1995-425480	19950420
CA 2218528	AA	19961024	CA 1996-2218528	19960419
CA 2218528	C	20030624		
AU 9655573	A1	19961107	AU 1996-55573	19960419
AU 709733	B2	19990902		
EP 821787	A1	19980204	EP 1996-912911	19960419
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 11505324	T2	19990518	JP 1996-531933	19960419
US 6043025	A	20000328	US 1997-949115	19971010
AU 9959500	A1	20000203	AU 1999-59500	19991117
AU 740831	B2	20011115		

PRIORITY APPLN. INFO.: US 1995-425480 A 19950420
WO 1996-US5435 W 19960419

OTHER SOURCE(S): MARPAT 126:16491

AB A process and a kit are provided for detecting differences in .gtoreq.2 samples of protein. Protein exts. are prepd., for example, from each of a different group of cell samples to be compared. Each protein ext. is labeled with a different one of a luminescent dye from a matched set of dyes. The matched dyes have generally the same ionic and pH characteristics but emit light at different wavelengths to exhibit a different color upon luminescence detection. The labeled protein exts. are mixed together and electrophoresed together. The gel is obsd. to detect proteins unique to one sample or present in a greater ratio in one sample than in the other. Those unique or excess proteins will fluoresce the color of one of the dyes used. Proteins common to each sample migrate together and fluoresce the same.

IC ICM G01N027-447

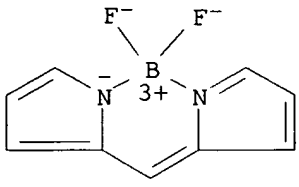
CC 9-4 (Biochemical Methods)
Section cross-reference(s): 6, 10

ST protein difference **gel electrophoresis** multiple dye; animal cell protein difference **gel electrophoresis**; fluorescent dye **gel electrophoresis** protein; bacteria protein difference **gel electrophoresis**

IT Carboxyl group
Cell
Escherichia coli
Fluorescence microscopy
Polyacrylamide gel electrophoresis
Sulfhydryl group
(difference **gel electrophoresis** using matched multiple dyes)

IT **Proteins, general, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(difference **gel electrophoresis** using matched

multiple dyes)
IT Cyanine dyes
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(difference **gel electrophoresis** using matched multiple dyes)
IT Staining, biological
Stains, biological
(fluorescent; difference **gel electrophoresis** using matched multiple dyes)
IT **Gel electrophoresis**
(two-dimensional; difference **gel electrophoresis** using matched multiple dyes)
IT 56-87-1D, Lysine, proteins contg.
RL: ANT (Analyte); ANST (Analytical study)
(difference **gel electrophoresis** using matched multiple dyes)
IT 183988-72-9P 183988-73-0P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(difference **gel electrophoresis** using matched multiple dyes)
IT 106-94-5, 1-Bromopropane 1640-39-7, 2,3,3-Trimethyl-(3H)-indole 4224-70-8, 6-Bromohexanoic acid 5652-79-9, Malonaldehyde dianil 74124-79-1, N,N'-Disuccinimidyl carbonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(difference **gel electrophoresis** using matched multiple dyes)
IT 118-12-7P, 2-Methylene-1,3,3-trimethylindoline 622-15-1P, N,N'-Diphenyl formamidine 18781-53-8P 183988-68-3P 183988-69-4P 183988-70-7P 183988-71-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(difference **gel electrophoresis** using matched multiple dyes)
IT **138026-71-8D**, Dipyrromethene boron difluoride, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(dyes; difference **gel electrophoresis** using matched multiple dyes)
IT **138026-71-8D**, Dipyrromethene boron difluoride, derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(dyes; difference **gel electrophoresis** using matched multiple dyes)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 73 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:525942 HCAPLUS
DOCUMENT NUMBER: 125:322157
TITLE: Evaluation of five green fluorescence-emitting streptavidin-conjugated fluorochromes for use in immunofluorescence microscopy
AUTHOR(S): Benchaib, Mehdi; Delorme, Richard; Pluvinage, Muriel; Bryon, Paul Andre; Souchier, Catherine
CORPORATE SOURCE: Analytical Cytology Lab., Claude Bernard Univ., Lyon, F-69373, Fr.
SOURCE: Histochemistry and Cell Biology (1996), 106(2), 253-256
CODEN: HCBIFP
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English

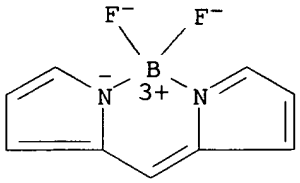
AB Fluorescein isothiocyanate (FITC) is largely used in immunofluorescence methods. We propose to analyze the quality of some recent fluorochromes using image anal. Fluorochromes tested include FITC and dichlorotriazinylaminofluorescein (DTAF), dipyrromethene boron difluoride (BODIPY), Rhodol Green, and cyanine 2. RAMOS cells were immunolabeled against the proliferating cell nuclear antigen (PCNA) revealed by the biotin-streptavidin technique. Slides were mounted in anhyd. glycerol or in buffered glycerol (pH 7.0 or pH 8.5). No antifading medium was added. Cell fluorescence emission intensity and bleaching characteristics were measured. Rhodol Green exhibited the highest fluorescence intensity and the best photobleaching resistance. Although BODIPY also resisted well during the photobleaching assay, its fluorescence intensity was weak. FITC, DTAF and cyanine 2 showed intermediate fluorescence intensity and a fast decay of fluorescence. Among the green-emitting fluorochromes tested, Rhodol Green appeared to be the best.

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 15

IT 9013-20-1D, Streptavidin, fluorochrome conjugates 21811-74-5D, Dichlorotriazinylaminofluorescein, streptavidin conjugates 27072-45-3D, FITC, streptavidin conjugates **138026-71-8D**, Dipyrromethene boron difluoride, **streptavidin** conjugates 183185-51-5D, Rhodol Green, streptavidin conjugates
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(green fluorescence-emitting fluorochromes for immunofluorescence microscopy)

IT **138026-71-8D**, Dipyrromethene boron difluoride, **streptavidin** conjugates
RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)
(green fluorescence-emitting fluorochromes for immunofluorescence microscopy)

RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 74 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:226248 HCAPLUS
DOCUMENT NUMBER: 124:258508
TITLE: Bispecific antibody for antigen determination
INVENTOR(S): Fujita, Satoshi; Kagyama, Naoto; Momyama, Masayoshi; Kondo, Yasumitsu
PATENT ASSIGNEE(S): Aisin Seiki, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

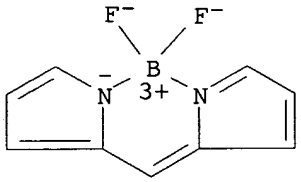
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08029419	A2	19960202	JP 1994-183853	19940712

PRIORITY APPLN. INFO.: JP 1994-183853 19940712

AB Disclosed is a bispecific antibody having affinity for antigenic analyte and signal-generating hapten useful for immunoassay. Both antigenic analyte and signaling hapten could be biotin, digoxigenin, dinitrophenol, trinitrophenol, fluorescein, tetramethylrhodamine B isothiocyanate, rhodamine, Texas Red, lucifer yellow, DNA, RNA, etc. The signaling hapten can also be fluorescent substance-contg. liposome or enzyme substrate. In example, bispecific antibody against biotin and digoxigenin was prepd. for detecting biotin-labeled gene probe for lymphocyte chromosome 29 antigen.

IC ICM G01N033-531
ICS C12N009-16; G01N033-541; G01N033-543
CC 15-3 (Immunochemistry)
Section cross-reference(s): 3, 9
IT 51-28-5, Dinitrophenol, biological studies 58-85-5, Biotin 88-89-1, Trinitrophenol 91-64-5, Coumarin 1672-46-4, Digoxigenin 2321-07-5, Fluorescein 4272-77-9D, Dansyl acid, derivs. 9001-77-8, Acid phosphatase 9001-78-9, Alkaline phosphatase 9003-99-0, Peroxidase 9013-79-0, Esterase 9013-93-8, Phospholipase 9033-06-1, Glucosidase 13558-31-1D, derivs. 16322-19-3D, derivs. 82354-19-6, Texas Red 82446-52-4, Lucifer yellow 107347-53-5, TRITC **138026-71-8**, BODIPY
RL: ANT (Analyte); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(bispecific **antibody** for **antigen** detn.)
IT **138026-71-8**, BODIPY
RL: ANT (Analyte); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(bispecific **antibody** for **antigen** detn.)

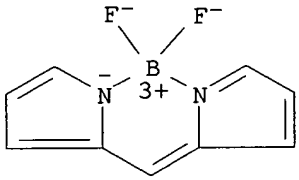
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 75 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:728061 HCAPLUS
DOCUMENT NUMBER: 123:137654
TITLE: Imaging of endosome fusion in BHK fibroblasts based on a novel fluorimetric avidin-biotin binding assay
AUTHOR(S): Emans, Neil; Biwersi, Joachim; Verkman, A. S.
CORPORATE SOURCE: Cardiovascular Res. Inst., Univ. California, San Francisco, CA, 94143-0521, USA
SOURCE: Biophysical Journal (1995), 69(2), 716-28
CODEN: BIOJAU; ISSN: 0006-3495
PUBLISHER: Biophysical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

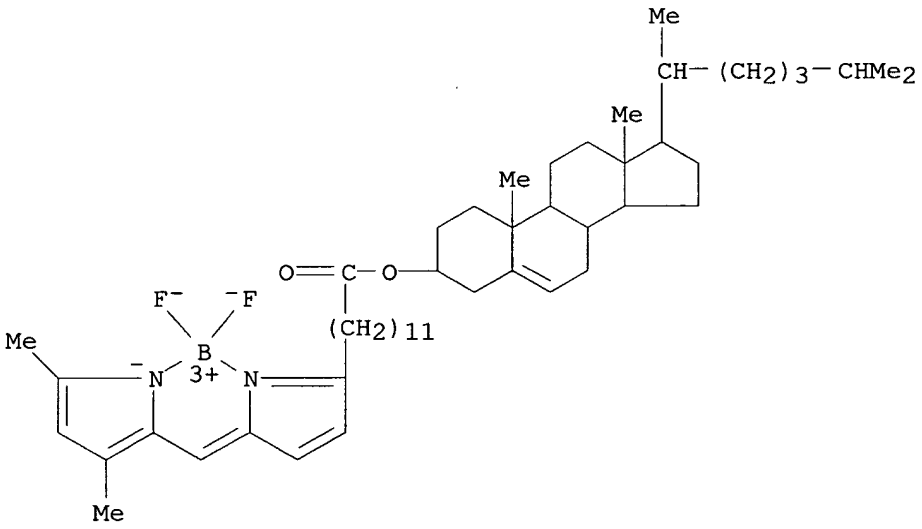
AB A fluorescence assay of in vivo endosome fusion was developed and applied to define the kinetics of endosome fusion in baby hamster kidney (BHK) fibroblasts. The assay is based on an .apprx.10-fold enhancement of the green fluorescence of BODIPY-avidin upon biotin binding. The BODIPY-avidin fluorescence enhancement occurred in <25 ms, was pH-independent, and involved a BODIPY-tryptophan interaction. For endocytosis in vivo, BHK fibroblasts were pulse-labeled with BODIPY-avidin together with a red (rhodamine) fluorescent fusion-independent chromophore (TMR). After specified chase times in a nonfluorescent medium, a second cohort of endosomes was pulse-labeled with biotin-conjugated albumin, dextran, or transferrin. Fusion of biotin-contg. endosomes with avidin-contg. endosomes was quantified by ratio imaging of BODIPY-to-TMR fluorescence in individual endosomes, using imaging methods developed for endosome pH studies. Anal. of BODIPY-to-TMR ratio distributions in avidin-labeled endosomes exposed to zero and max. biotin indicated >90% sensitivity for detection of endosome fusion. In avidin pulse (10 min) -chase-biotin albumin pulse (10 min) studies, both fused and unfused endosomes were identified; the fractions of avidin-labeled endosomes that fused with biotin-labeled endosomes were 0.48, 0.21, 0.16, and 0.07 for 0-, 5-, 10-, and 20-min chase times. Fitting of fusion data to a math. model of in vivo endosome fusion required the existence of an intermediate fusion compartment. Pulse-chase studies performed with biotin-transferrin to label the early/recycling endosomes indicated that after a 10-min chase, avidin-labeled endosomes reached a compartment that was inaccessible to biotin-transferrin. The assay was also applied to det. whether endosome fusion was influenced by temp., pH (bafilomycin A1), second messengers (cAMP agonists, phorbol 12-myristate 13-acetate, staurosporine), and growth-related factors (platelet-derived growth factor, genistein). The results establish a sensitive fluorescence assay

to quantify the fusion of vesicular compartments in living cells.
CC 8-9 (Radiation Biochemistry)
IT 58-85-5, Biotin **138026-71-8D**, BODIPY, **avidin-biotin** conjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent imaging of endosome fusion in fibroblasts based on **avidin-biotin** binding assay)
IT **138026-71-8D**, BODIPY, **avidin-biotin** conjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent imaging of endosome fusion in fibroblasts based on **avidin-biotin** binding assay)
RN 138026-71-8 HCAPLUS
CN Boron, difluoro[2-[(2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrolato-.kappa.N]-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 76 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:37930 HCAPLUS
DOCUMENT NUMBER: 120:37930
TITLE: Characterization of biotinylated liposomes for in vivo targeting applications
AUTHOR(S): Loughrey, Helen C.; Ferraretto, Anita; Cannon, Ann-Marie; Acerbis, Giulia; Sudati, Francesco; Bottiroli, Giovanni; Masserini, Massimo; Soria, Marco R.
CORPORATE SOURCE: Department of Biochemistry, University College Galway, Galway, Ire.
SOURCE: FEBS Letters (1993), 332(1-2), 183-8
CODEN: FEBLAL; ISSN: 0014-5793
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Liposomes contg. monosialoganglioside (GM1) or polyethylene glycol (PEG) lipid derivs. have prolonged circulation in the blood. This favors liposome extravasation to tumor sites. In this report it is shown that inclusion of GM1, PEG550-DPPE or PEG2000-DPPE in liposomes contg. biotin-DPPE significantly diminished the ability of vesicles to bind to streptavidin in vitro. Steric inhibition due to the bulky head group of these lipids was least for biotin-DPPE liposomes contg. GM1. Biodistribution studies in C26 tumor-bearing mice showed that GM1-liposomes contg. small amts. of biotin-DPPE have long circulation life-times in the blood. Using fluorescent microscopic techniques, liposomes contg. both GM1 and biotin-DPPE were detected within extra-vascular spaces in tumors. In addn. it was shown that biotin-DPPE in GM1-liposomes bound streptavidin in situ. These results suggest that GM1-liposomes contg. biotin-DPPE have potential use as diagnostic or therapeutic reagents in pre-targeting applications dependent on the high-affinity interaction of biotin with streptavidin.

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1
IT 57-88-5, Cholest-5-en-3-ol (3.beta.)-, biological studies 37758-47-7, Ganglioside GM1 **151911-45-4**
RL: BIOL (Biological study)
(biotinylated liposomes contg., **streptavidin** binding to, tumor targeting in relation to)
IT **151911-45-4**
RL: BIOL (Biological study)
(biotinylated liposomes contg., **streptavidin** binding to, tumor targeting in relation to)
RN 151911-45-4 HCAPLUS
CN Boron, [(3.beta.)-cholest-5-en-3-yl 2-[(3,5-dimethyl-1H-pyrrol-2-yl-.kappa.N)methylene]-2H-pyrrole-5-dodecanoato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)



L27 ANSWER 77 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1991:509751 HCAPLUS
DOCUMENT NUMBER: 115:109751
TITLE: Multiple fluorescent ligands for dopamine receptors. II. Visualization in neural tissues
AUTHOR(S): Ariano, Marjorie A.; Kang, Hee Chol; Haugland, Richard P.; Sibley, David R.
CORPORATE SOURCE: Coll. Med., Univ. Vermont, Burlington, VT, 05405, USA
SOURCE: Brain Research (1991), 547(2), 208-22
CODEN: BRREAP; ISSN: 0006-8993
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Selective dopamine receptor ligands, (R,S)-5-(4'-aminophenyl)-8-chloro-2,3,4,5-tetrahydro-3-methyl-[1H]-3-benzazepin-7-ol, the 4'-amino deriv. of the high affinity D1 receptor antagonist SCH 23390, and high affinity D2 receptor antagonist N-(p-aminophenethyl)-spiperone or NAPS, and the D2 selective agonist, 2-(N-phenethyl-N-propyl)-amino-5-hydroxytetralin or PPHT were chem. coupled to the fluorescent compds., Bodipy, Cascade blue, coumarin, fluorescein, rhodamine, or Texas red. The utility of the 6

fluorescent moieties linked to the 3 dopamine receptor binding ligands for anatomical study of regional and cellular distribution patterns of the two dopaminergic receptor subtypes has been assessed in frozen sections of the rat striatum and compared to a previous report using the rhodamine-labeled antagonists. The regional staining for the 2 dopaminergic receptor binding sites supports previous work using in vitro receptor autoradiog. analyses; the D1 receptor binding was more robust than that of D2 receptors in the caudate nucleus. The cellular element which most frequently expressed striatal D1 binding sites had a medium-diam. cell body. Medium-sized cells also exhibited fluorescence for the D2 binding site, as did a much larger diam. element; potentially the cholinergic interneuron of the caudate nucleus. The pharmacol. specificity for each of the different D1 fluorescent antagonist ligands in the tissues was detd. by competition with 100-fold excess of unlabeled SCH 23390 (non-specific binding), spiroperidol (binding selectivity), the stereoactive paired isomers of butaclamol, and the serotonin 5-HT2 receptor antagonist ketanserin. The same criteria were used to assess the different D2 fluorescent agonist and antagonist ligand derivs. The anatomical efficacy of these novel ligands was detd. using selective dichroic filters to stimulate the fluorescent moieties in the optimal excitation wavelength, and the amt. of fluorescent dopamine receptor binding was photog. measured and contrasted for each of the newly synthesized fluoroprobes. Using the most pharmacol. specific and anatomically efficient of these novel fluorophores, the authors detd. the localization pattern of the D1 and D2 dopamine receptor binding sites in tissues reported to exhibit both subtypes of the receptor. The cellular distribution of the dopamine receptor binding sites was detd. concurrently using fluoroprobes in the forebrain, mesencephalon, pituitary, retina, and superior cervical ganglion of the rodent, and bovine adrenal medullary chromaffin cells were examd. using the rhodamine-labeled antagonists.

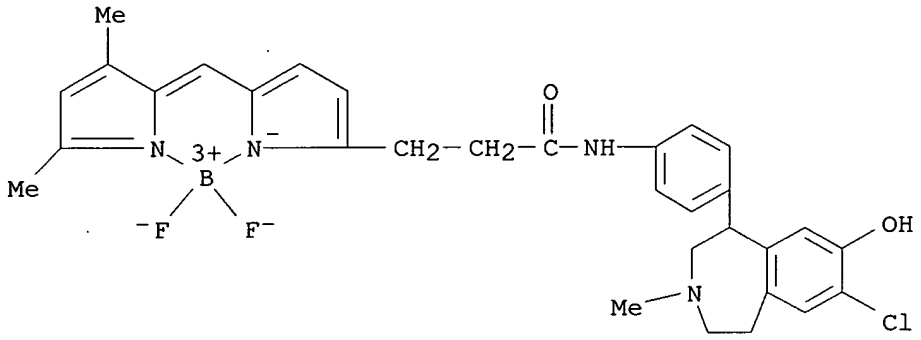
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 2

IT **121086-03-1 121086-10-0** 121086-12-2
135243-34-4 135588-07-7 135588-08-8 135588-09-9
135588-12-4 135588-13-5 135588-14-6 135588-18-0 135616-92-1
RL: ANST (Analytical study)
(fluorescent **ligand**, for dopamine receptor visualization in neural tissue)

IT **121086-03-1 121086-10-0 135243-34-4**
RL: ANST (Analytical study)
(fluorescent **ligand**, for dopamine receptor visualization in neural tissue)

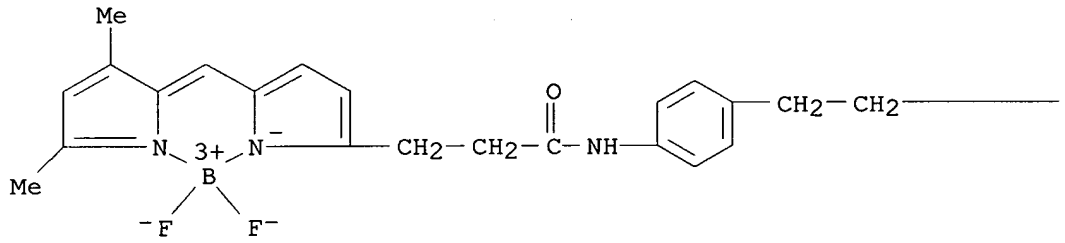
RN 121086-03-1 HCAPLUS

CN Boron, [N-[4-(7-chloro-2,3,4,5-tetrahydro-8-hydroxy-3-methyl-1H-3-benzazepin-1-yl)phenyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrole-2-propanamidato-N1,N5]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

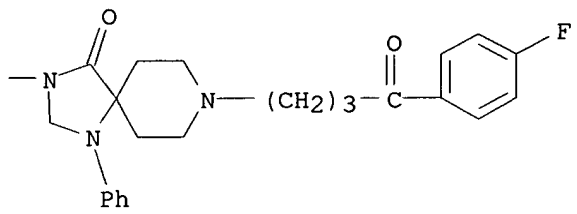


RN 121086-10-0 HCAPLUS
CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[4-[2-[8-[4-(4-fluorophenyl)-4-oxobutyl]-4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-3-yl]ethyl]phenyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A

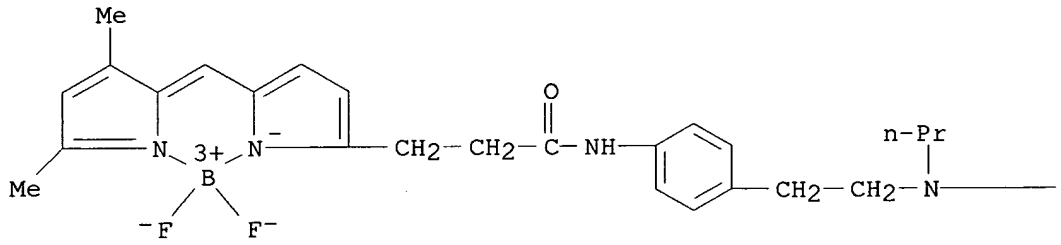


PAGE 1-B



RN 135243-34-4 HCAPLUS
CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[4-[2-[propyl(1,2,3,4-tetrahydro-5-hydroxy-2-naphthalenyl)amino]ethyl]phenyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

PAGE 1-A



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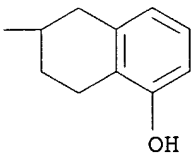
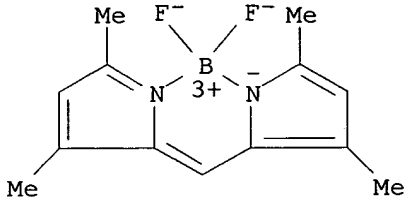


L27 ANSWER 78 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1989:628307 HCAPLUS
DOCUMENT NUMBER: 111:228307
TITLE: Spectral properties of 4-sulfonato-3,3',5,5'-tetramethyl-2,2'-pyrromethen-1,1'-borondifluoride complex (Bodipy), its sodium salt, and protein derivatives
AUTHOR(S): Kang, Hee Chol; Haugland, Richard P.; Fisher, Phyllis J.; Prendergast, Franklyn G.
CORPORATE SOURCE: Mol. Probes, Inc., Eugene, OR, 97402, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1989), 1063(New Technol. Cytom.), 68-73
CODEN: PSISDG; ISSN: 0277-786X
DOCUMENT TYPE: Journal
LANGUAGE: English

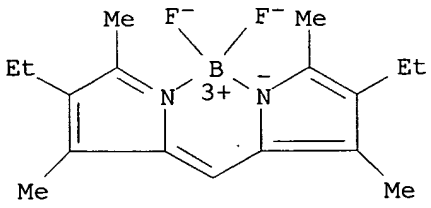
AB Absorbance, fluorescence, and lifetimes were measured of Bodipysulfonate, Bodipy, and the complex with 2 different proteins. Application as fluorescent probes is discussed.

CC 9-5 (Biochemical Methods)
IT 21658-70-8, Bodipy **21658-70-8D**, Bodipy, **avidin** complexes 65539-84-6 105237-28-3
RL: PRP (Properties)
(spectrum of)
IT **21658-70-8D**, Bodipy, **avidin** complexes
RL: PRP (Properties)
(spectrum of)
RN 21658-70-8 HCAPLUS

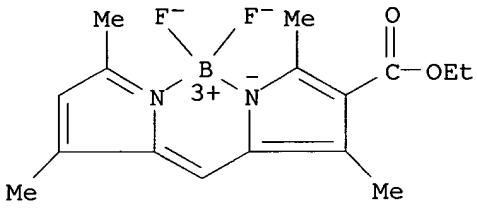
CN Boron, [2-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-3,5-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



L27 ANSWER 79 OF 79 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:408946 HCAPLUS
DOCUMENT NUMBER: 83:8946
TITLE: Chemistry of pyrrole pigments. V. Nitrogen-hydrogen tautomerism of substituted pyrromethenes. Conformational analysis by the lanthanide induced shift technique
AUTHOR(S): Falk, H.; Gergely, S.; Hofer, O.
CORPORATE SOURCE: Univ. Wien, Vienna, Austria
SOURCE: Monatshefte fuer Chemie (1974), 105(5), 1004-18
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The conformation of pyrromethanes in soln., detd. by their lanthanide-induced NMR chem. shifts, were (Z)-syn with the free bases slightly twisted; the protonated and BF2 complexed forms were planar. The PDIGM computer program was used to statistically treat the exptl. data.
CC 22-9 (Physical Organic Chemistry)
IT **55799-81-0 56128-02-0**
RL: PRP (Properties)
(conformation and tautomerization of, **ligand** shift NMR of)
IT **55799-81-0 56128-02-0**
RL: PRP (Properties)
(conformation and tautomerization of, **ligand** shift NMR of)
RN 55799-81-0 HCAPLUS
CN Boron, [3-ethyl-5-[(4-ethyl-3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-2,4-dimethyl-1H-pyrrolato-.kappa.N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 56128-02-0 HCAPLUS
CN Boron, [ethyl 5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-2,4-dimethyl-1H-pyrrole-3-carboxylato-N1,N2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)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